FEDERAL BUREAU OF INVESTIGATION
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FEDERAL BUREAU OF INVESTIGATION

09/05/99

Date of transcription

At the request of National Transportation Safety Board Investigator in charge (NTSB), [redacted] an eight man investigative team lead by a U.S. Forest Service Guide, hiked up to the 11,700 foot level of Hunter's Peak to investigate the wreckage of a Piper Archer PA-28-181, N4366D which had collided into mountainous terrain at this location on the previous day killing the Instructor Pilot Mr. Charles Burns and the student pilot Special Agent Paul A. Leveille. Following is a list of the team members: b6 b7C

SSA	[redacted]	FBI, CIRG, Quantico
SA		FBI, Phoenix division
SA		FBI, Pueblo Colo. RA
SA		FBI, Pueblo Colo. RA
SA		FBI, WMFO
SA		FBI, Los Angeles Division
Mr.		Air Safety Investigator Piper Aircraft Inc.
Mr.		Air Safety Investigator Textron/Lycoming Inc.

b6 b7C

The team departed an FBI Command Post which had been set up off of Highway 285 six miles South of Salida, Colorado at approximately 10:00am on All Terrain Vehicles up to the 10,000 feet level on Hunter's Peak. From this point, at approximately 10:30am, the team traveled by foot until they reached the crash site at the 11,700 foot level at approximately 12:20 pm.

The crash site is located a few hundred feet from the top of the tree line in very rocky terrain which slopes at about a 45 degree angle. Most of the vegetation in the area was comprised of large pines trees that average 30 to 40 feet in height. Because of the difficulty posed in traversing this terrain all measurements were made by estimation.

Upon arrival at the crash site, the site was still smoldering within a radius of twenty feet from the main impact area. The initial impact tree strike damage started approximately 400 feet from the resting site of the main fuselage, on a compass heading of 090 degrees. A subsequent line of tree strikes indicates that the aircraft initially struck the trees in a

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substantial left bank on a heading of 270 degrees. Both wings were torn off by impact with large trees.

It appears that after the fuselage came to a stop, that the weight off the engine rotated the fuselage 90 degrees downhill to the left to a heading of approximately 180 degrees. This was most probably due to engine weight being drawn down slope until it hung up on a large tree and rock. There was no indication of any fire beginning prior to the fuselage's final impact with the terrain. The aircraft fuselage that was not torn off was almost entirely consumed by the post crash fire aft of the engine firewall. The engine was relatively intact with the propeller showing rotational damage indicating it was receiving power at impact.

SA [redacted] assisted/observed [redacted] Air Safety Investigator for Textron/Lycoming Inc. in conducting in an on site inspection of the engine. [redacted] was able to determine that the engine was operating in a normal condition at the time of impact. That the Throttle control was in the mid range position, and that the Mixture control was in the full rich condition. Both of these positions could have been a result of movement by the force of impact. b6 b7C

The position of the mixture lever is belied by the condition of the engine spark plugs, which indicated that the engine was operating in a properly leaned condition prior to impact. If the mixture had been place in the full rich position prior to impact, the plugs would have shown signs of fowling.

There was nothing else found to verify weather the throttle having been pulled back to mid range by the pilot prior to impact.

The both engine magnetos checked out as working properly producing sparks on all four leads during hand rotation. The top engine spark plugs were removed and found to show normal operating coloration. The combustion chambers were examined and found to be undamaged. Valve covers were removed and the valves showed normal operation with no indication of metal contamination in the oil.

There was no indication of fuel or oil leaks from the engine and no indication of any damage to the engine with the exception of moderate impact damage to the left front side. The carburetor was torn from its mounting pad and was inaccessible to a full site inspection.

SA [redacted] also observed/assisted [redacted] Air Safety Investigator, Piper Aircraft in an examination of the aircraft wreckage. All major portions of the aircraft were located to include the left and right wings and tail control to include the left and right horizontal stabilators. There was no indication of any in-flight breakup prior to impact. The elevator jack screw was found in a neutral position indicating that the aircraft was properly trimmed for level flight. b6 b7C

All control wires were found to have been properly attached. The flight control cables were located and found to properly linked to flight control surfaces. A main landing gear wheel was located approximately 500 feet downhill from the main impact area.

The aircraft instrument panel was severely damaged by the post crash fire, and it was not possible to observe any witness marks on any of the aircraft gauges. The aircraft center section and main spar also were severely damaged by post crash fire and impact damage.

Both the left and right wings received serious impact damage and the inboard section of the right wing was almost totally consumed in the post crash fire. The tail section also showed signs of impact damage and serious post crash fire damage.

An extensive examination of surrounding vegetation failed to show any sign of fire damage outside of the immediate impact area.

In over viewing the position of the aircraft, its major parts, and the strike damage to trees, all indications are consistent with the aircraft striking the ground in controlled flight in a 45 to 60 degree left bank. The 090 degree crash path of the aircraft indicates that it had to have flown very deeply into the valley before impacting the terrain on the South wall of the canyon that it had flown into.

The team departed the crash site at approximately 2:00 pm, and arrived back at the FBI Command Post at 3:30 pm.

FEDERAL BUREAU OF INVESTIGATION

Date of transcription 9/9/199

SA [redacted] who is assigned to the Los Angeles Field Office, 1100 Wiltshire Blvd., Los Angeles, California, was provided with the identity of the interviewing agent, and advised as to the nature of the interview. He subsequently provided the following information: b6 b7C

He is a Bureau Pilot in Command with the FBI, and has accumulated approximately 1,300 total pilot flight hours in Single Engine Airplanes. He arrived in Colorado Springs Colorado on August 29, 1999 to attend a Bureau sponsored Mountain Flying Pilot Training course being conducted by Colorado Skyways, Colorado Springs Airport, Colorado. That evening, he met and went to dinner with Bureau SA Pilots [redacted] Washington Metropolitan Field Office(WMFO),and Paul A. Leveille, El Paso Division, who were also attending the Mountain Flying course. b6 b7C

On August 29, 1999 all three pilots attended a ground training course which began at 8:00 a.m. and ended at Noon. SA [redacted] advised that he thought that the ground school training, which was taught by an instructor named [redacted], covered everything that they needed to know about the mountain flying course, including basics of Mountain flying, density altitude, and the exact route that they were to fly.

That evening the three pilots went out to dinner together to a local restaurant. SA [redacted] did not recall that any of the pilots had any type of alcoholic beverage. The three pilots retired to their hotel, the Residence Inn at Colorado Springs Airport, at approximately 8:30 p.m.. b6 b7C

On the morning of September 1, 1999 SA Leveille drove the three of them to Colorado Skyways arriving at approximately 6:50 a. m. When they arrived and greeted their respective flight instructors. SA Leveille's Certified Flight Instructor (CFI), Chuck Burns, told him that they would be flying the Piper Archer. SA [redacted] advised that SA Leveille had no hesitation with flying the Archer, and that he immediately went out with the instructor to pre-flight the aircraft. SA [redacted] was assigned to fly with CFI [redacted] in a Cessna 172, N97890, SA [redacted] was assigned to fly with CFI [redacted] in a Cessna C-172, N96319. b6 b7C

Investigation on 9/3/99 at COLORADO SPRINGS, CO.

File # 66H-IR-A5346 Date dictated 9/9/99

by [redacted] b6 b7C

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The three aircraft were placed on a VFR flight plan that was left with the Company flight dispatch. SA [redacted] aircraft was the second to depart and flew Westbound to skirt the restricted area, R2601, before turning Southbound toward Hayden pass. At approximately 8:00 a.m. SA [redacted] aircraft was circling just North of Hayden pass to gain sufficient altitude to get through the pass. At this time he could see SA [redacted] Cessna, and he heard radio traffic from SA Leveille's aircraft, but did not see it. As his aircraft crossed the pass, SA [redacted] note that the winds seemed light, the air was fairly smooth, and he could see a few scattered high clouds.

After all of the aircraft had reported that they were through the pass, the instructors agreed to start practicing box canyon turns. SA [redacted] heard SA Leveillle's instructor, Mr. Burns say over the radio that "We're going to try one over here." This was the last radio transmission that SA [redacted] heard from this aircraft.

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While SA [redacted] was completing his third 'Box Canyon Turns' in a large canyon just North of Hayden Pass, he heard SA [redacted] instructor, [redacted] report that he could see smoke and asked, "Have you seen Chuck?" There was a brief discussion that perhaps The Archer had encountered radio problems, and had gone on to Salida Airport. At his time both aircraft checked for an Emergency Locator Transmitter (ELT) signal on frequency 121.5 with no result.

After a few minutes, CFI [redacted] asked the other aircraft to fly cover over the area while he flew to Salida Airport. While circling the area of smoke, SA [redacted] took one roll of color 35 mm film of the scene. During this time CFI [redacted] offered the opinion that the canyon they were circling was "to tight" to practice 'Box Canyon Turns'. As he circled the area, SA [redacted] noticed that the smoke from the crash rose straight up the ridge before suddenly turning 180 degrees to go down the canyon.

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At approximately 8:40 a.m. CFI [redacted] returned to the area accompanied by a Bell 206-L-3 helicopter. At 8:45 a.m. this helicopter pilot was able to confirm that the source of the smoke was a small crashed aircraft. SA [redacted] recalls that at this time the helicopter pilot reported encountering strong down

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drafts inside the canyon. Following the report from the helicopter pilot, CFI [redacted] put out a 'Mayday' radio call which was picked up by United Air Lines flight #169, The pilot of this aircraft reported that he relayed the report of a downed aircraft requiring search and rescue, 10 miles Southeast of Salida Airport to the Denver Air Traffic Control Center.

Leaving the SA [redacted] Cessna C-172 over the crash site, Instructor [redacted] flew his aircraft back to Salida Airport. SA [redacted] aircraft remained over the crash scene for two additional hours until they were relieved by A Colorado State Police Cessna 182. At this time SA [redacted] flew his aircraft back to Salida Airport. After landing, SA [redacted] took the film that he and SA [redacted] had taken while circling the crash scene to a local photo processor for development. b6 b7C

FEDERAL BUREAU OF INVESTIGATION

Date of transcription 9/08/99

[redacted] a part time instructor pilot with COLORADO SKYWAYS, 1777 Aviation Way, Colorado Springs, Colorado, telephone number (719) 574-2111, was interviewed at his place of business where he provided the following information: b6 b7C

He has been employed by COLORADO SKYWAYS for the entire four and one half years of the company's existence. His full time employment is as a Systems Analyst for FEDERAL EXPRESS. When questioned about his background in aviation, [redacted] listed his FEDERAL AVIATION ADMINISTRATION (FAA) certificates as including a Commercial Instrument Single Engine Land and a Multi Engine Land Certificate, along with instructor licensing to include a Certified Flight Instructor (CFI) rating, a Certified Flight Instructor Instrument (CFII) rating, and a Multi Engine Instructor (MEI) rating.

When asked to reconstruct the events of September 1, 1999, [redacted] began his story of that Wednesdays activities with his 6:45 arrival at COLORADO SKYWAYS, to prepare for a scheduled round robin mountain flight with two other COLORADO SKYWAYS Instructor Pilots and three FEDERAL BUREAU OF INVESTIGATION (FBI) student pilots. [redacted] put his personal survival gear in the Cessna 172 he was scheduled to fly that day. At approximately 6:50 a.m. he noted the arrival of one of the two other SKYWAYS Instructor Pilots scheduled to make the trip. That pilot was CHUCK BURNS, who began his own pre-flight of the Archer he was going to fly for the scheduled mission ahead. [redacted] noted that BURNS performed a normal pre-flight, and that his aircraft required no oil. [redacted] also watched as BURNS loaded an ice chest containing the picnic lunch for the six men who were scheduled to take the cross country flight planned for that day. b6 b7C

At approximately 6:55 a.m., [redacted] was back inside his office building, where he noted the recent arrival of [redacted] the other scheduled Instructor Pilot for the days mission. Approximately five minutes later the three FBI pilots assigned to fly with the SKYWAYS instructors arrived. These pilots were Special Agent (SA) [redacted] who would be flying with [redacted] SA [redacted] who would be flying with [redacted] in another Cessna 172, and SA PAUL LEVEILLE, who would be flying with CHUCK BURNS. According to [redacted] LEVEILLE had been b6 b7C

Investigation on 9/02/99 at Colorado Springs, Colo

File # 66H-IR-A5346 Date dictated 9/04/99

by SA [redacted] b6 b7C

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selected to fly with BURNS only because he was the biggest of the Agents, and the Archer was capable of handling more total weight. Just prior to the arrival of the three Agents, [redacted] obtained a weather printout, which reflected excellent weather conditions for the planned trip, to include VFR weather along the entire route and relatively light winds.

[redacted] remembers starting his aircraft engine at approximately 7:10 a.m., and taxiing out for departure by 7:20 to 7:30 a.m. [redacted] and [redacted] were the first pilots to depart the Colorado Springs Airport, with [redacted] and [redacted] being next in trail, approximately three to four miles. BURNS and LEVEILLE then took off in their more powerful Archer and joined the other two aircraft which had leveled off at 7,500 feet while proceeding westbound toward the mountain range. [redacted] explained that all three aircraft were able to remain in constant communication via a common radio frequency of 122.75. By using this and visual references, they were able to remain within close contact of one another for purposes of flight following and the overall safety of the mission. [redacted] routinely keeps his second radio on the International Guard frequency, 121.5. Upon approaching the mountain range, [redacted] noted that there were standing lenticular clouds northwest of the Hayden Pass, and for this reason all three aircraft elected to climb slightly higher than normal as they gained altitude prior to the Pass, so as to have greater separation with the ground on the way to the western valley that awaited them. [redacted] believes BURNS and LEVEILLE called that they were going over at 11,800 feet, and that he and [redacted] went over at approximately 11,300 feet. As always, [redacted] entered the Pass at a 45 degree angle, so that he would be able to "bail out" with a minimal amount of turn had he run into significant down drafts.

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After all three aircraft had crossed the Hayden Pass at approximately 8:20 a.m., BURNS called on the radio to say that he was furthest north of the three and that he would begin practicing his box canyon maneuvers. Since [redacted] was next in line south along the mountain ridge, he started his box canyon turns, as did [redacted] who was farther south still. [redacted] normally taught three different types of box canyon turnouts. The first is essentially a climbing chandelle, while the second is a procedure which requires the pilot to go quickly to ten degrees of flaps while simultaneously turning the aircraft at 45

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to 50 degrees of bank while slowing to decrease the radius of turn and complete a 180 degree turn back out of the mountain pass. The third maneuver taught by [redacted] involves doing a modified wing over, where you trade air speed for altitude, and reverse course. [redacted] student, [redacted] did the first box canyon turnout, but requested [redacted] demonstrate the wing over maneuver for their second effort. At about this point, [redacted] called on the radio to advise he had finished his three box canyon maneuvers and was going to proceed northbound to Salida for landing. [redacted] acknowledged but BURNS did not. [redacted] then called to say he saw smoke to his north and would proceed over it to examine the cause. Repeated calls from both [redacted] and [redacted] failed to raise BURNS' on the radio, and so [redacted] advised [redacted] he would proceed to the Salida Airport to try and determine whether BURNS and LEVEILLE had perhaps lost their radio and landed at Salida for assistance. Before leaving the source of the smoke he saw earlier, [redacted] called that he could now see flames and smoke but no wreckage. [redacted] then proceeded northbound where he took up an orbit over the smoke, while [redacted] departed for Salida. [redacted] like [redacted] also saw the flames but could see no evidence of wreckage such as one might expect following an aircraft accident. He also noted that there was no ELT signal on the Guard frequency, as you would expect to hear had an aircraft crashed.

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Within a couple of minutes [redacted] was back on the radio to advise [redacted] that he was near the Salida Airport, and that BURNS' aircraft was not there. It was at about this time that a U.S. WEST helicopter was on final approach to the Salida Airport and came up on the radio to advise [redacted] he would come south to check the smoke for possible wreckage. All aircraft then switched to the U.S. WEST common air to air frequency, 129.15, so that they could talk together and remain clear of the Unicom frequency [redacted] had been using when he was contacted by the U.S. WEST aircraft. The helicopter pilot then flew low over the smoke and flames and advised that he could see aircraft parts scattered along the mountain ridge. After staying on station and making several passes over what [redacted] now believed to be a crash site, the helicopter pilot departed the area for a landing at Salida. At approximately 9:00 to 9:15 a.m., [redacted] who now feared his partner BURNS had crashed, went up on the Guard frequency of 121.5 to call out a Mayday message and attempt to make contact with a high flying aircraft which

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FD-263 (Rev. 4-30-85)

FEDERAL BUREAU OF INVESTIGATION

REPORTING OFFICE	OFFICE OF ORIGIN	DATE	INVESTIGATIVE PERIOD
Phoenix	CIRG	05/01/2000	09/01/99-05/01/2000

TITLE OF CASE

BUREAU AVIATION SAFETY PROGRAM
AIRCRAFT ACCIDENT 09/01/1999
VILLA GROVE, COLORADO
SA PAUL A. LEVEILLE, PILOT-DECEASED
CHARLES L. BURNS, FLIGHT INSTRUCTOR
-DECEASED

REPORT MADE BY Investigative Team of
SA [redacted] Atlanta
SA [redacted] Phoenix

TYPED BY: [redacted]

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CHARACTER OF CASE

ADMINISTRATIVE MATTER
AIRCRAFT ACCIDENT

-RUC-

REFERENCE:

CIRG EC to Atlanta dated 09/10/1999

APPROVED [redacted] ECIAL AGENT IN CHARGE

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DO NOT WRITE IN SPACES BELOW

COPIES MADE:
4 - BUREAU (Encls)
(1) Civil Litigation, FBIHQ
(1) ASOU, CIRG
(1) SSA [redacted]
(1) 66H-IR-A5436 (with original photos)
1 - Phoenix (SA [redacted])
1 - Atlanta (SA [redacted])

DISSEMINATION RECORD OF ATTACHED REPORT				
Agency				
Request Recd.				
Date Fwd.				
How Fwd.				
By				

Notations

CIRG/10-1

A
COVER PAGE

VOLUNTARY STATEMENT

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DATE Sept 1 19 99 . TIME 4:25 M. PLACE

I, [redacted] and I live at [redacted]

I am giving this statement to [redacted] I.D. [redacted], who has identified himself as a Deputy Sheriff

and he has duly warned me that I have the following rights: that I have the right to remain silent and not make any statement at all; that any statement I make may be used against me at my trial; that any statement I make may be used as evidence against me in court; that I have the right to have a lawyer present to advise me prior to and during any questioning; that if I am unable to employ a lawyer, I have the right to have a lawyer appointed to advise me prior to and during any questioning and that I have the right to terminate the interview at any time.

Prior to and during the making of the statement, I have and do hereby knowingly, intelligently, and voluntarily waive the above explained rights and I do make the following voluntary statement to the aforementioned person of my own free will and without any promises or offers of leniency or favors, and without compulsion or persuasion by any person or persons whomsoever:

Around 9:30am I saw a small white plane circling around the mountain maybe 5 or 6 times. Didn't seem to be anything wrong with the plane it sounded fine and was flying normally. I heard a loud crack. like a breaking tree around 9:45 and continued to my Jeep. I arrived around 10:00 and my hunting partner [redacted] pulled up and said that the plane had crashed. We hiked up south Rock creek road attempting to ascertain where the plane was. We saw the smoke and pieces of the plane but were unable to get to it. On our way down we were met by some people on ATV's going to the sight.

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I have read this statement consisting of 1 page(s), each page of which bears my signature, and I do affirm that all facts and statements contained herein are tru[redacted]nt

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b7C

The above warnings were given by and this voluntary statement was taken by

Witness

(This must be one and the same person as named above)

[redacted] b6 b7C

VOLUNTARY STATEMENT

[redacted]

DATE 9-1 .19 99 .TIME [redacted] PLACE

I, [redacted] and I live at [redacted]

I am giving this statement to [redacted] I.D. [redacted], who has identified himself as a Deputy Sheriff

and he has duly warned me that I have the following rights: that I have the right to remain silent and not make any statement at all; that any statement I make may be used against me at my trial; that any statement I make may be used as evidence against me in court; that I have the right to have a lawyer present to advise me prior to and during any questioning; that if I am unable to employ a lawyer, I have the right to have a lawyer appointed to advise me prior to and during any questioning and that I have the right to terminate the interview at any time.

Prior to and during the making of the statement, I have and do hereby knowingly, intelligently, and voluntarily waive the above explained rights and I do make the following voluntary statement to the aforementioned person of my own free will and without any promises or offers of leniency or favors, and without compulsion or persuasion by any person or persons whomsoever:

Early the morning of 1 Sept 1999 while bow hunting elk I noticed a single engine aircraft circling the mountain above S. Rock creek. Some time later I heard a loud crash like a tree falling. I was leaving the area and when I got to the main road I noticed the State Patrol watching the mountain. I asked the officer if it was a plane crash and was told yes. I went back up to N. Rock, found my hunting partner [redacted] and hiked up S. Rock creek access road to approx 600 meters from the crash site. There was a deep canyon between us so we couldn't physically get to the site. We yelled and whistled but got no response. I could see a small part of the wreckage in the trees on a small shelf. The wreckage appeared to be completely ~~about~~ crushed. We felt there was no survivors so we took a position fix with a GPS [redacted] and a compass heading and started down. Near the bottom we ran into the first contact team and told them what we saw.

End of statement.

I have read this statement consisting of _____ page(s), each page of which bears my signature, and I do affirm that all facts and statements contained herein are t[redacted] b6 b7C

[redacted]

[redacted]

The above warnings were given by and this voluntary statement was taken by

[redacted]

(This must be one and the same person as named above)

Harriet Alexander Field
Salida, CO

09/01/99

Time	Pressure Val.	Temperatures Ten	Out	Ten	In	Ten	Out Humidity %	Ten	DP	Wind THI	Dir	Avg	Gst	Ch-ill	Precip. Amnt.	Rate
06:00	2994	000	054	-04	072	-01	031	016	24	48	010	003	004	054	00.00	00.00
06:10	2994	000	053	-04	072	-01	032	006	24	47	300	002	005	053	00.00	00.00
06:20	2994	000	052	-03	072	-01	033	009	24	46	340	002	004	052	00.00	00.00
06:30	2994	000	052	-07	072	-01	037	019	26	46	200	003	005	052	00.00	00.00
06:40	2994	000	052	-03	072	-01	037	010	26	46	350	001	004	051	00.00	00.00
06:50	2995	000	051	-02	072	-01	040	011	27	45	270	004	006	047	00.00	00.00
07:00	2995	000	052	-02	072	-01	040	009	28	46	300	004	009	052	00.00	00.00
07:10	2995	000	052	000	072	-01	039	004	28	46	330	006	010	048	00.00	00.00
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09:10	2995	000	060	006	071	000	015	-26	12	53	000	004	008	060	00.00	00.00
09:20	2994	000	061	007	071	000	011	-21	6	54	310	002	006	061	00.00	00.00
09:30	2993	000	062	007	071	000	007	-26	-3	55	010	003	006	062	00.00	00.00
09:40	2994	000	062	006	072	001	007	-12	-3	55	050	004	005	062	00.00	00.00
09:50	2994	000	063	003	072	001	005	-07	-9	56	010	002	004	063	00.00	00.00

↑ 10 min average knots

↑ 10 min highest gust, knots

WEATHER BRIEFINGS

METAR KCOS 011554Z 15008KT 10SM FEW050 SCT120 21/12 A3013 RMK A02
SLP118 T02060122=

!COS 08/027 COS 17R/35L CLSD WEF 9909011400-9909011800=

!COS 08/028 COS 12/30 NW 1000 CLSD WEF 9909011400-9909011800=

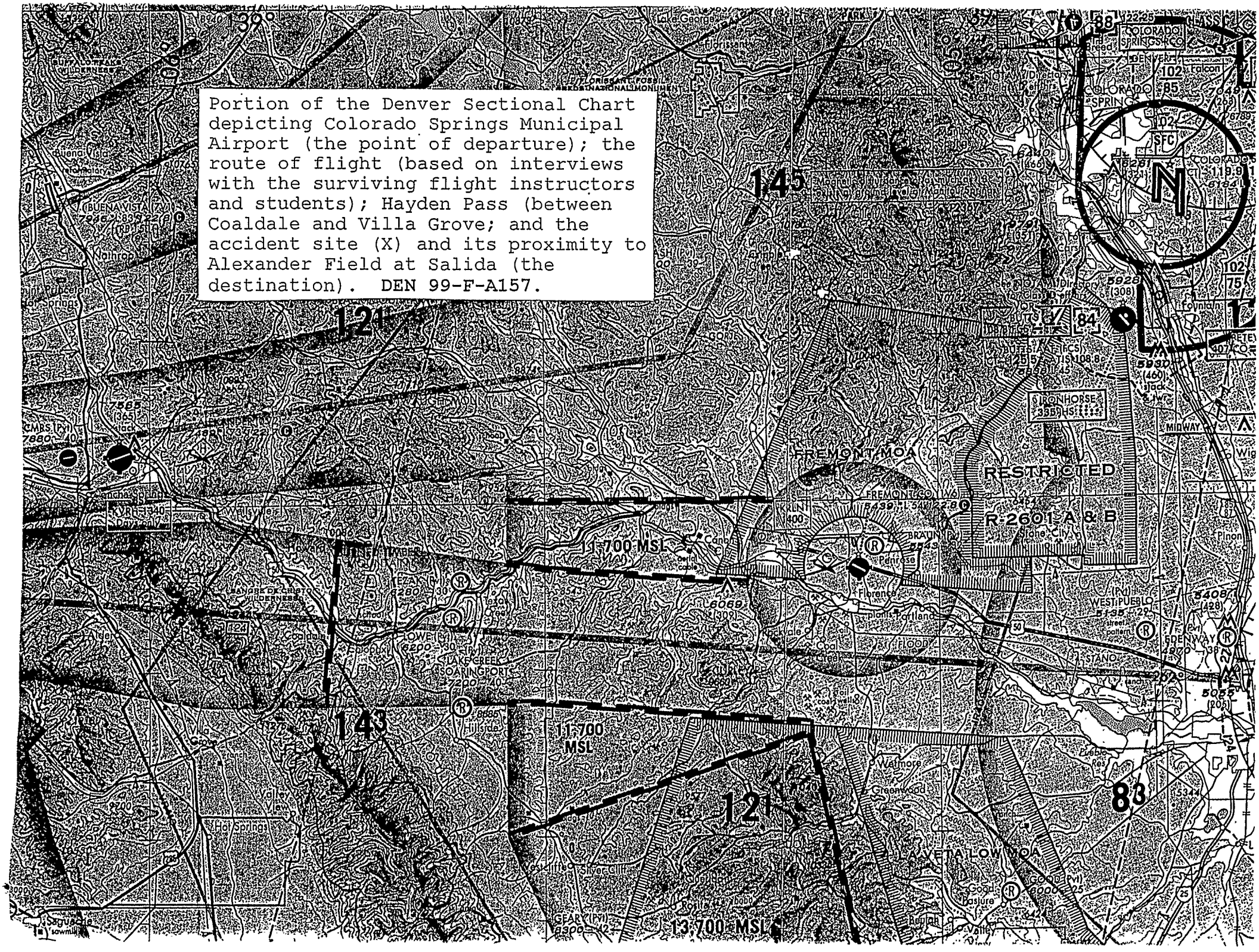
WEATHER BRIEFINGS

METAR KGUC 011555Z AUTO 27004KT 10SM BKN110 13/08 A3026 RMK A01=

METAR KGUC 011615Z AUTO 00000KT 10SM FEW120 14/09 A3025 RMK A01=

METAR KGUC 011615Z AUTO 00000KT 10SM FEW120 14/09 A3025 RMK A01=

COS 011554Z 15008KT 10SM FEW050 SCT120 21/12 A3013
GUC 011555Z 27004KT 10SM BKN110 13/08 A3026


Portion of the Denver Sectional Chart depicting Colorado Springs Municipal Airport (the point of departure); the route of flight (based on interviews with the surviving flight instructors and students); Hayden Pass (between Coaldale and Villa Grove; and the accident site (X) and its proximity to Alexander Field at Salida (the destination). DEN 99-F-A157.
145
121
143
121
83
FREMONT MOA
RESTRICTED
R-2601 A & B
11,700 MSL
11,700 MSL
13,700 MSL
LAVETA LOW MOA

SAGUACHE COUNTY RADIO/TELEPHONE LOG DATE 9/1/9

TIME	NAME/UNIT CALLING	NAME/UNIT CALLED	MESSAGES/COMMENTS
0801			10-41 10-8
0802			Message for [redacted] - Put on her desk will also call her
0804			left msg on machine
800			[redacted] in Cpt. msg
801			Fed Ex package Rec
806			[redacted] b6 b7C
824			[redacted] turned in tic plate - registered to you (Cpt msg)
820			Forest Fire at Hunts Peak & E of Dorsey Creek
			10-49 of report of Forest Fire - will notify [redacted] b6 b7C
830			10-41
850			
907			Report of Plane down 1 mi N of Saguache
910			Report of Plane Crash - got this from Grand Jct.
911			Cpt msg - get up and Call
918			Report of plane down
921			R23 on 285 mi marker 114 & Can see smoke from

DATE 9/1/99

(12/31/1995)

FEDERAL BUREAU OF INVESTIGATION

Precedence: ROUTINE **Date:** 10/13/2000

To: Inspection **Attn:** [redacted] b6 b7C

From: Inspection Division
Contact: [redacted] Extension 1837

Approved By: [redacted]

Drafted By: [redacted]

Case ID #: 66A-HQ-1255145

Title: AIRCRAFT ACCIDENT REVIEW BOARD (AARB)
DELIBERATION CONCERNING AN
AIRCRAFT ACCIDENT, 09/01/1999,
VILLA GROVE, COLORADO

Synopsis: To advise of the AARB's deliberation concerning an aircraft accident involving a Piper PA28-181 single engine airplane during a training session on 09/01/1999. Special Agent (SA) Paul A. Leveille and Colorado Skyways Flight Instructor Charles L. Burns were killed as a result of the plane crash.

Details: Reference report of SA [redacted] dated 05/01/2000, and Electronic Communication from Supervisory Special Agent (SSA) [redacted] dated 07/19/2000. b6 b7C

This communication is prepared to furnish the analysis, comments, and recommendations of the AARB with reference to the captioned airplane crash.

1 - [redacted] Rm. 7142
2 - [redacted] Rm. 7116
(1 - [redacted])
1 - [redacted] Rm. 7128
2 - [redacted] Rm. 7427
(1 - [redacted] Rm. 7326)
1 - [redacted] CIRG
1 - [redacted] Rm. 7825
1 - [redacted] Rm. 7837
1 - [redacted] Rm. 6646

1 - [redacted] Rm. 4042
(Attention: [redacted]) b6 b7C
1 - [redacted] CIRG
1 - [redacted] CIRG
1 - [redacted] Rm. 3787
1 - [redacted] Quantico
1 - [redacted] WFO
1 - [redacted] Quantico
1 - [redacted] Rm. 7861

To: Inspection From: Inspection Division
Re: 66A-HQ-1255145, 10/13/2000

Details of the Aircraft Accident

On 09/01/1999, SA Paul A. Leveille of the El Paso Division was killed while participating in a Bureau sponsored mountain flying course in Colorado Springs, Colorado. His flight instructor, Charles L. Burns, employed by Colorado Skyways was also killed in the accident which occurred approximately 70 miles West of Pueblo, Colorado, at the 11,700 foot mark of Hunter Mountain in the town of Villa Grove, Colorado.

The aircraft caught fire upon crashing and most of the aircraft and the bodies of both pilots were consumed by the post crash fire.

An investigator of the National Transportation Safety Board, along with an eight-man investigative team composed of FBI personnel hiked up to the 11,700 foot level of Hunter's Peak to investigate the wreckage. Upon arrival the crash site was smouldering within a radius of twenty feet from the main impact area. The initial impact occurred when the aircraft struck trees standing approximately 400 feet from the resting site of the main fuselage. A subsequent line of tree strikes indicated that the aircraft initially struck the trees in a substantial left bank on a heading of 270 degrees with both wings torn off by the impact with large trees.

The investigation revealed no indication of any fire beginning prior to the fuselage's final impact with the terrain. The aircraft fuselage that was not torn from the plane was almost entirely consumed by the post crash fire aft of the engine firewall. The engine was relatively intact with the propeller showing rotational damage which indicated that it was receiving power at impact. It was also determined that the engine was operating in a normal condition at the time of impact. The crash path of the aircraft indicated that it had to have flown very deeply into the valley before impacting the terrain on the south wall of the canyon.

When interviewed, SA [redacted] of the Los Angeles Division, advised that on 08/29/1999, he, SA [redacted] a pilot assigned to the Washington Field Office and SA Leveille, attended a ground training course which began at 8:00 a.m., and ended at Noon. According to SA [redacted] he thought that the ground school training covered everything the pilots needed to know about the mountain flying course, including the basics of mountain flying, density altitude, and the exact route they were to fly. b6 b7C

To: Inspection From: Inspection Division
Re: 66A-HQ-1255145, 10/13/2000

On the morning of 09/01/1999, the three Agents arrived at Colorado Skyways at approximately 6:50 a.m., and were greeted by their respective flight instructors. SA Leveille's flight instructor advised that he and SA Leveille would be flying the Piper Archer. According to SA [redacted], SA Leveille had no hesitation with flying the Archer.

During the first part of the flight, SA [redacted] viewed SA [redacted] Cessna and although he did not sight SA Leveille's aircraft, heard radio traffic from his aircraft. SA [redacted] advised that the winds seemed light, the air was fairly smooth, and he could see a few scattered high clouds. b6 b7C

After all three aircraft had reported that they were through Hayden Pass, the instructors agreed to start practicing "box canyon" turns. SA [redacted] heard SA Leveille's instructor say over the radio that "We're going to try one over here". This was the last radio transmission heard from SA Leveille's aircraft.

While SA [redacted] was completing his third "box canyon" turn, he heard SA [redacted] instructor report that he could see smoke and asked, "Have you seen Chuck"? There was a brief discussion that perhaps SA Leveille's aircraft had encountered radio problems, and had gone to the Salida Airport. However, both aircraft checked for an Emergency Locator transmitter signal with no result. b6 b7C

After a few minutes, SA [redacted] flight instructor asked SA [redacted] flight instructor to remain over the area while he flew to Salida Airport. While circling the area of smoke, Flight Instructor [redacted] commented that the canyon they were circling was "too tight" to practice "box canyon" turns.

At approximately 8:40 a.m., SA [redacted] and his flight instructor returned to the area accompanied by a Bell 206-L-3 helicopter whose pilot had offered to render assistance. At 8:45 a.m., the helicopter pilot was able to confirm that the source of the smoke was a small crashed aircraft. SA [redacted] also recalled that the helicopter pilot reported that he encountered strong down drafts inside the canyon. b6 b7C

Interview of SA [redacted] corroborated the events as stated by SA [redacted].

[redacted] Director of Flight Training, Aviation and Special Operations Unit (ASOU), advised that in 1995, he began soliciting vendors in the Colorado area to provide a Pilot Mountain Flying training course for Bureau pilots. During his solicitation, [redacted] discovered that two vendors who provided such training were going out of business; however, b6 b7C

both of the vendors recommended the use of Colorado Skyways. [redacted] met with the owner of Colorado Skyways and after viewing the flight operations, believed that the company had a good cadre of instructor pilots. During the development of the curriculum for the course, [redacted] decided that Cessna 172 planes would be utilized for the training with the provision that larger sized pilots could opt to fly a larger Cessna 182RG. The Cessna 172 was chosen in order to provide the pilots with more of a challenge in flying the course. b6 b7C

The curriculum also included a request that part of the training flight include landing at Telluride, Colorado. [redacted] realized that requesting this landing would require a flight of seven to seven and one half hours in one day, but thought that having Telluride included in the flight program was worth the extra long training day. [redacted] also set a formal requirement with Colorado Skyways to only utilize experienced flight instructors to provide training to the Bureau pilots undergoing this course. b6 b7C

[redacted] Aviation Program Manager, ASOU, suggested the use of a purchase order rather than signing a contract for this training, resulting in a purchase order for $19,000 being let with Colorado Skyways to train 25 Bureau pilots per summer in Mountain Flying Training. It should be noted that during a three year period, ASOU management did not conduct an on-site at Colorado Skyways to determine if the training was being conducted appropriately or to monitor the course. The oversight provided by the ASOU consisted of careful review and monitoring of responses provided in pilot evaluations. During the entire period, one pilot complained about having to complete the flying in a one day period. Additionally, as a result of poor student evaluations concerning one flight instructor, [redacted] had the Flight Instructor removed from the course. b6 b7C

[redacted] also advised that he was unaware that Colorado Skyways was utilizing a low wing Piper Archer in place of the agreed upon Cessna aircraft.

AARB Deliberation

On 08/08/2000, the AARB met to discuss the above captioned aircraft incident. Deputy Assistant Director [redacted] Office of Inspections, Inspection Division, chaired the meeting with the following voting members of the AARB in attendance: [redacted] Chief Inspector, Office of Inspections, Inspection Division; [redacted] Section Chief, Personnel Assistance Section, Administrative Services b6 b7C

Division; [redacted] Unit Chief, NS-2B, National Security Division, SSA [redacted] Undercover and Sensitive Operations Unit, Operational Support Section, Criminal Investigative Division; [redacted] Unit Chief, Investigative Law Unit, Office of the General Counsel; [redacted], Unit Chief, Firearms Training Unit, Training Division; SSA [redacted] Firearms - Toolmarks Unit, Scientific Analysis Section, Laboratory Division; SSA [redacted] Program Manager, Practical Applications Unit, Training Division; and, SSA [redacted] Washington Field Office. The only nonvoting member present was [redacted] Management/Program Analyst, Office of Inspections, Inspection Division. b6 b7C

Additionally, the following two representatives from the Critical Incident Response Group (CIRG), ASOU, were in attendance: SSA [redacted] Aviation Safety and Training Program Manager, ASOU; and SSA [redacted] Bureau Aircraft Maintenance Program Manager. b6 b7C

Prior to the discussion, a presentation was made by SA [redacted] of the Phoenix Division, SA [redacted] Aircraft Accident Investigator, of the Boston Division; and SA [redacted] a Bureau Instructor Pilot of the Columbia Division.

SA [redacted] provided basic information to the AARB members including history of the mountain flying course that began in the mid 1980s. He also advised that the flying course used on the day of the accident had been in effect for approximately three years.

SA [redacted] explained to the group that the model of aircraft being utilized was operating near its maximum performance capability on the day of the accident. He further emphasized the fact that any aircraft equipped with a reciprocating, normally aspirated engine, such as this one, does not perform as well as altitude increases due to "thinning air", as compared to one with a larger and/or turbo-charged engine. For instance, the plane being flown by SA Leveille and his instructor, with a four cylinder engine, had a service ceiling of approximately 12,000 feet and information revealed that the plane was flying at 11,800 feet before impact. By comparison, a typical Bureau Cessna R182, which has a six cylinder engine, has a significantly higher service ceiling. However, despite the performance limitations of the aircraft, the investigation determined that there were no engine problems or malfunctions which contributed to the accident. The finding of cause for the accident was that the aircraft was flown into a narrow canyon b6 b7C

from which it could not escape and the problem was made worse by a probable down draft that existed at the time of the accident.

SA [redacted] continued the presentation by explaining that the mountain flying course provided by Colorado Skyways was obtained through Government Purchase Order (GPO) rather than contract due to the less than $25,000 cost. A GPO, unlike the conditions that would be specified in a contract, did not describe a specific course of instruction to be provided, did not set minimum instructor experience or aircraft requirements, and did not set standards of instruction, or any course completion requirements. b6 b7C

A lengthy discussion centered around the lack of a training curriculum; standards utilized to determine the success of the training; and ASOU's oversight of the training provided by Colorado Skyways.

The consensus of the investigating team members and the AARB was that the training provided by Colorado Skyways consisted of no curriculum, no checklists, no checks and balances and that training left little margin for pilot error. Members opined that although this type of training is critical to FBI operations, the training must be conducted in an efficient and safe manner. The pilots explained that in previous years, the "box canyon turn" maneuver was practiced over flat terrain where imaginary canyon boundaries were established by using ground-based landmarks such as barns or other buildings. This enabled pilots to practice this type of flying while ensuring their safety by allowing space for error. CIRG participants advised board members that no outside training of this caliber is currently being conducted until review of this incident is completed. This discussion resulted in the recommendation that the CIRG approve no training by use of GPO and that all training exercises be initiated by the use of contracts which define specific requirements for the training as well as a statement of the work to be accomplished.

Members noted the lack of any random onsite visits by members of ASOU to ensure that the training being conducted by Colorado Skyways was adequate. Furthermore, ASOU did not oversee the training provided by Colorado Skyways to ensure that it was being conducted properly and safely. This discussion led to the recommendation that ASOU should conduct random onsite visits to any flight training being provided by vendors for the Aviation Program.

The next discussion area revolved around monitoring responses provided for pilot evaluations. AARB members opined that ASOU management should develop procedures to ensure that follow-up with all trainees is conducted. This would ensure that

ASOU is kept apprised of any concerns that pilots may have regarding safe and proper training.

The conclusion of the AARB members was that the following four items played a major part in this plane crash: 1) the occupants of the aircraft entered a narrow canyon from which they could not escape; 2) the instructor pilot was relatively inexperienced in Colorado mountain flying; 3) the plane being utilized was underpowered for this type of exercise; and 4) the Bureau pilot was relatively inexperienced.

The AARB Chairman briefly discussed the Management Study of the FBI Aviation Program conducted by the Organizational Program Evaluation and Analysis Unit, Inspection Division, in May 2000, which resulted in fifty-five recommendations regarding improvements to the Aviation Program. Coupled with the recommendations of the investigators of the aircraft accident and those of the AARB, it was recommended that the Investigative Services Division (ISD) obtain experts to review recommendations of the three entities and develop a plan for implementation to ensure these type of situations do not recur.

To: Inspection From: Inspection Division
Re: 66A-HQ-1255145, 10/13/2000

LEAD (s):

Set Lead 1:

INVESTIGATIVE SERVICES DIVISION (ISD)

AT FBIHQ

That the Assistant Director, ISD, ensure that all flight training is obtained through contracts which define the course of instruction to be to provided, setting minimum instructor or aircraft requirements, standards of instruction, and course completion requirements.

Set Lead 2:

INVESTIGATIVE SERVICES DIVISION (ISD)

AT FBIHQ

That the Assistant Director, ISD, ensure that all pilot training that is approved is accompanied by random onsite visits by management of the ASOU.

Set Lead 3:

INVESTIGATIVE SERVICES DIVISION (ISD)

AT FBIHQ

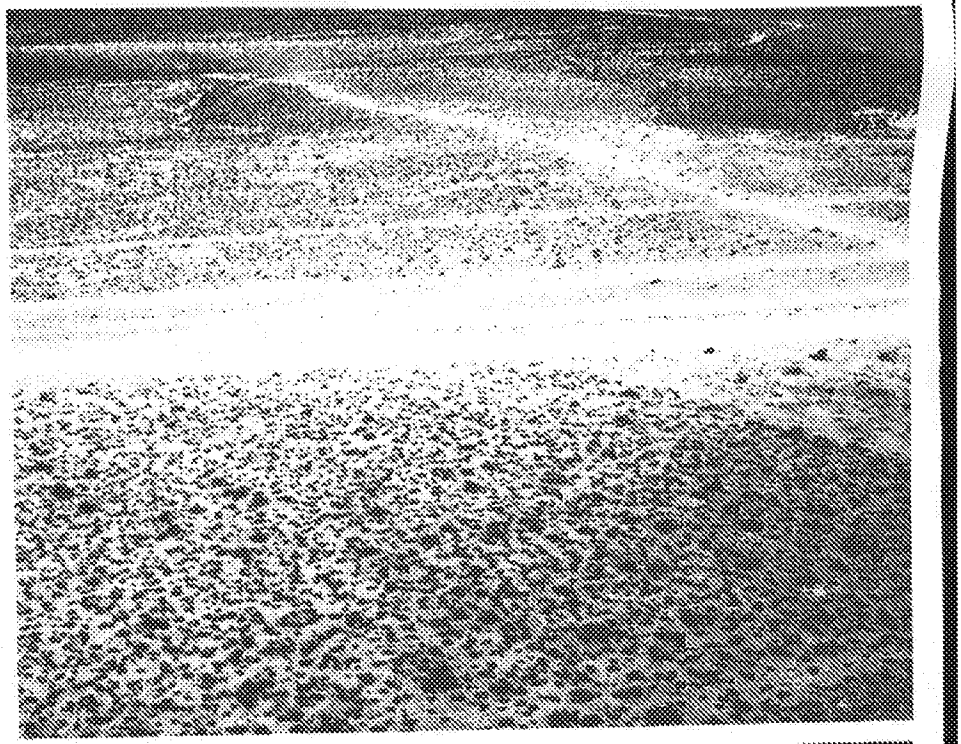
That the Assistant Director, ISD, institute a method to ensure follow-up is conducted with all trainees regarding class procedures.

Set Lead 4:

INVESTIGATIVE SERVICES DIVISION (ISD)

AT FBIHQ

That the Assistant Director, ISD, appoint a committee of experts in the area of aviation to review the findings and recommendations of the Management Study of the FBI Aviation Program conducted in May 2000, as well as the recommendations of the aircraft investigators and the AARB. A plan should be developed for implementing these recommendations.



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this entire flight and the sole manipulator of the controls at all times excluding the few moments during which he took pictures out his side window and asked BURNS for his assistance in order to make picture taking possible. All three aircraft in this flight school grouping were in radio contact via a discreet frequency assigned before take-off as well as being in frequent visual contact with one another as they traversed the Colorado countryside. After passing through the Hayden Pass at a higher altitude than the two Cessna 172s accompanying them, BURNS selected a box canyon just north and east of the pass, where he asked SA [redacted] to fly the box canyon turnout maneuvers that had been briefed the day before in the classroom. BURNS talked SA [redacted] through this first maneuver which involved a 60 degree bank diving turn out of the canyon at 100 to 200 feet above ground level (AGL) in order to follow the sloping terrain away from the mountain, which had been directly in front of their aircraft before commencing the maneuver. Following this first effort at escaping a potentially dangerous mountain pass, BURNS talked SA [redacted] through a second maneuver which had not been briefed the day before. This maneuver involved a 20 degree nose up attitude in order to kill air speed and then a left aileron right rudder maneuver to reverse aircraft direction. SA [redacted] stated that the maneuver confused him and failed to work as it should have and so he requested BURNS demonstrate the maneuver correctly. BURNS then took control of the aircraft and re-entered the box canyon where he performed the maneuver successfully. Although the maneuver worked for BURNS and not for [redacted] was unable to accurately describe exactly what was involved in the maneuver or how it could have worked since the control inputs would seem to invite a cross control stall rather than a course reversal, but somehow it worked for BURNS despite [redacted] failure to understand precisely what was happening.

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The total route flown with BURNS and [redacted] that day involved 7.6 total hours of flight time plus time out for landings at several different airports and a picnic lunch. BURNS seemed cautious in his approach to mountain flying and generally stayed higher than the other two aircraft. He also appeared completely competent and knowledgeable about mountain flying. At some point during the day SA [redacted] remembers BURNS telling him that he had been employed at COLORADO SKYWAYS only since April, 1999, and that before this time he worked as an instructor in mountain flying somewhere in California. So far as SA [redacted]

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could tell, BURNS was a "nice and competent instructor" who showed no evidence of drug or alcohol abuse.

FEDERAL BUREAU OF INVESTIGATION

Date of transcription 01/18/00

[redacted] a part-time Instructor Pilot with COLORADO SKYWAYS, 1777 Aviation Way, Colorado Springs, Colorado, telephone number (719) 574-2111 was re-interviewed telephonically at his home, [redacted] where he provided the following information after being advised that this interview will supplement information provided by him to writer on September 4, 1999: b6 b7C

[redacted] referred to his Pilot Log Book to confirm his 4.3 hour mountain check out flight flown with deceased COLORADO SKYWAYS Instructor CHUCK BURNS on May 12, 1999. This flight was accomplished in the Piper Archer BURNS was later killed in on September 1, 1999. The flight was preceded by approximately two hours of ground school training using a written syllabus obtained by [redacted] from three or four different sources. This syllabus will be provided within several days by FEDERAL EXPRESS. The ground school, in addition to providing detailed specifics on mountain flying, also involved graphs obtained from the Pilot Operating Handbook (POH) in order to demonstrate to BURNS that specific numbers are not available for high density altitude flights and that this necessitates using certain rules of thumb. For example, [redacted] told BURNS that when taking off from a high altitude airport such as Leadville, Colorado, it would be necessary to select a point approximately midway down the runway and require that the aircraft have obtained at least 80 percent of Vx by that point in order to be able to accomplish a safe take off. This "rule of thumb" was necessary to know only because the POH only goes to 8,000 feet for take off altitudes while the Leadville Airport is located at almost 10,000 feet and therefore not included in any of the charts. [redacted] noted that no written test was associated with this initial check out and that none is normally required for a new instructor pilot. b6 b7C b6 b7C b6 b7C

[redacted] usually obtains any weather information from computer printouts or a telephonic conversation with the nearest Flight Service Station (FSS). Unfortunately, such briefings are normally limited in their usefulness since they refer to high altitude weather conditions and not low altitude conditions in the specific mountain passes remote to all reporting stations. Very few Pilot Reports (PIREPS) are obtainable through FSS since very few other people are flying at low altitude through the

Investigation on 01/11/00 at Colorado Springs, Colorado (telephonically)

File # 66H-IR-A5346 Date dictated 01/13/00

by SA [redacted] b6 b7C

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western Rockies. Additionally, [redacted] noted that at such low altitudes it is often very difficult to reach FSS by radio because of line of sight restrictions to reception.

[redacted] advised that another COLORADO SKYWAYS Instructor Pilot and friend, [redacted], recently hiked up the mountains to the crash site where CHUCK BURNS and FEDERAL BUREAU OF INVESTIGATION (FBI) Special Agent (SA) PAUL LEVEILLE were killed on September 1, 1999. [redacted] a Civil Engineer, advised [redacted] that by his calculations the box canyon selected by BURNS for his practice turnout was only approximately three quarters of a mile wide and that this was way too narrow to have been able to successfully complete such a maneuver. [redacted] himself has looked at the canyon from the air and likewise concluded that he would not have used that particular canyon for his box canyon practice.

[redacted] always demonstrates a maneuver to his student before permitting the student to repeat his actions on his own. For box canyon turnouts, [redacted] will select a wide canyon and complete the demonstration maneuver at relatively high altitude for the student and then back out to the valley and use an open area with a simulated box canyon as the area for the student to practice in. By selecting roads set a specific distance apart he is able to show the student about how far his turning radius was by reference to the positioning of the roads before and after the completion of the maneuver. Although less realistic than accomplishing the maneuver in an actual box canyon it is also a safer course of action.

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[redacted] was asked to check his log book to determine whether or not he had flown in the same basic valley area where BURNS and LEVEILLE had their accident anytime within the previous week preceding that accident. After a brief review of the log book entries for the end of August 1999, [redacted] was able to state that on August 25, 1999 he flew 7.7 hours with SA [redacted] in a Cessna 182 and that they had been in the vicinity of the accident site during that day. Additionally, [redacted] flew 7.1 hours in the Piper Archer on August 18, 1999, with SA [redacted]. When asked how he, [redacted] judges a successfully completed box canyon turn, he stated that if the student is able to successfully reverse course with a minimal amount of altitude loss he considers the maneuver to have been properly flown. In

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other words, the criteria is that a life be saved and not that a precise maneuver be flown since a precise 180 degree turn is unnecessary as long as the canyon is successfully escaped.

[redacted] regularly uses his aircraft checklist for all phases of flight such as start, taxi, take off, and the various climb and level off checks. He does not, however, use a syllabus in flight to check off successfully completed maneuvers. His emphasis on all flights is to stress the pitfalls involved in successfully negotiating mountain passes and areas of severe up and down drafts. He also tends to stress the various visual illusions associated with mountain flying and stresses to pilots that they must always have adequate respect for the mountains and their aircraft as well as developing alternative courses of action in the event of unanticipated aircraft or weather changes or phenomenon.

Prior to starting his own mountain instructional flights with students, [redacted] had a lengthy ground school with [redacted] of COLORADO SKYWAYS, and they went through the entire mountain flying syllabus together in a manner similar to the way [redacted] later did it with BURNS. This ground school would have been accomplished in approximately April, 1999 and may have involved an actual check flight, although when [redacted] was unable to find a record of such a flight in his log book he stated that it may simply have been a back seat ride with an instructor and student for purposes of learning the mountain course and watching another qualified instructor in action. b6 b7C

At the conclusion of this interview [redacted] again stated his intention to send the interviewer a copy of the syllabus he used for his ground school with BURNS as well as again stating his total willingness to answer additional questions which may occur at some later time.

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would then be asked to relay the accident information to Air Traffic Control (ATC), so that search and rescue efforts could begin. Almost immediately [redacted] was able to raise UNITED AIRLINES Flight 169, and this flight was able to advise Denver Center of the crash and approximate location of the wreckage. Over the course of the next two and a half to three hours that [redacted] remained on station circling the smoke, he utilized at least several additional aircraft to remain in contact with Denver Center and update and be updated on rescue efforts. [redacted] specifically remembered that FEDERAL EXPRESS Flight number 3014 was one of those aircraft, and that at some point he was told via relay that the Sheriff's Department for the local county had been notified.

While circling the wreckage [redacted] was able to note that the smoke would go up for a time and then bend back down and head toward the ground in what apparently was a system of fairly significant down drafts. During this time on station over the wreckage [redacted] was able to get rescue vehicle from the Sheriff's Department headed in the general direction of the crash site, although he had to leave station and turn matters over to a State Police aircraft before the final link up could be completed. [redacted] was, however, fairly certain that the State Police were in communication with local rescue units before he departed the area for a landing in Salida. It was at this point that he was able to meet up with [redacted] and [redacted], and note that they were busy making phone calls to various people to coordinate rescue efforts and advise both the flight school and FBI authorities what had likely occurred. [redacted] refueled his aircraft and took off for the accident site to ensure the State Patrol aircraft was there and talking to the ground units attempting to locate the crash site. [redacted] was told by the State Police aircraft that they were busy talking to rescue units, and so [redacted] took this as an indication that the link up had been completed and that he was now free to return to Colorado Springs.

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[redacted] remembered that BURNS had first arrived for work at COLORADO SKYWAYS sometime during April, 1999, and that he, [redacted] had given BURNS his mountain cross country check out flight on May 12, 1999, and that they flew 4.3 hours on that day. [redacted] had also given BURNS approximately two hours of ground school training to prepare him for his flight, and later a Cessna

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172 check out flight. When asked about BURNS' skill as a aircraft pilot, [redacted] noted that BURNS was very conservative and did not like to take chances. In general, [redacted] described BURNS as a good pilot, but one whose situational awareness was a little weak. In connection with this comment, [redacted] noted that when he saw the canyon where the crash occurred, he thought to himself that BURNS had selected an especially narrow valley to practice his box canyon turnouts. While [redacted] does not always elect the same box canyon for his demonstrations, he always attempts to select a good size canyon somewhere along the route, that for FBI student pilots often covers nearly seven and one half hours of flying through mountainous terrain with literally hundreds of canyons to choose from.

[redacted] gave his home telephone number as [redacted] and stated that he would call the interviewer if he could think of additional details.

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FD-204 (Rev. 12-1-95)

UNITED STATES DEPARTMENT OF JUSTICE
Federal Bureau of Investigation

Copy to:

Report of: SA [redacted] Office: Phoenix
Date: January 11, 2000

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Case ID #: 66H-IR-A5346

Title: BUREAU AVIATION PROGRAM
AIRCRAFT ACCIDENT 09/01/1999
VILLA GROVE, COLORADO
SA PAUL LEVEILLE, PILOT- DECEASED
CHARLES L. BURNS, FLIGHT INSTRUCTOR- DECEASED

Character: ADMINISTRATIVE MATTER - AIRCRAFT ACCIDENT

Synopsis: On September 1, 1999 SA Paul A. Leveille, El Paso Office, was killed while participating in a Bureau sponsored mountain flying course in Colorado Springs, Colorado. His flight instructor, Charles L. Burns, employed by Colorado Skyways, was also killed in the accident. The crash occurred approximately 70 miles West of Pueblo, Colorado at the 11,700 foot mark of Hunter Mountain in the town of Villa Grove, Colorado.

The aircraft caught fire upon crashing and most of the aircraft was consumed by the post crash fire. The bodies of both of the pilots, who were the only two occupants on board the Piper PA28-181 single engine airplane, were also severly burned in the post crash fire. A full autopsy performed on the two pilots showed that they were both killed by blunt force trauma as a result of the initial impact of the aircraft into the mountain.

SA Leveille was appropriately authorized to be conducting this training. Both pilots licenses, and medicals were current. SA Leveille's pilot logbook was beleived to have been incinerated in the post crash fire.

A Drug Screen examination was performed on both pilots during the post mortem examination and indicated no use of Alcohol or illicit DrugS. Neither pilot was found to have had any significant medical problems which would have impaired his ability to perform pilot duties.

DETAILS:

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PROBABLE CAUSE

1. The Flight Instructor, Mr. Charles L. Burns improperly selected a Canyon to practice a 'Box-canyon turn' maneuver. The canyon was to small to perform this type of maneuver in this type of aircraft at this altitude, and within the conditions that were present during at the time of the accident.

ASSOCIATED CAUSAL FACTORS

1. A significant down draft within this canyon that was noted by the pilots of the other two Cessna 172 as well as the pilot of a Bell 206L, who flew into the canyon some twenty minutes after the accident, was also a factor in the aircraft's inability to complete this maneuver in this canyon

2. During his initial flight instructor check given by Colorado Skyways Flight Instructor [redacted] the instructor note that Mr. Burns situational awareness was "a little weak". Based on the known conservative nature of his flying, it is possible that Mr. Burn's did mean to enter this particular canyon, and had confused it with larger canyons to the North and South of this ridge line. b6 b7C

3. Lack of supervision on the part of Colorado Skyways in not having set up specific, or minimum sized, canyons along the flight route for their instructors to utilize in practicing this maneuver. Instructors were free to choose any canyon along the route to demonstrate and train pilots in this maneuver.

4. Lack of any direct supervision of this course on the part of the Aviation and Special Operations Unit (ASOU) to insure that this course was being conducted properly and safely.

5. The use of a type of aircraft (low wing) that is not being operationally utilized by Bureau pilots. If SA Leveille was at the flight controls at the beginning of this maneuver, his lack of experience in low wing aircraft may have lead him to initially hesitate in entering the very steep degree of bank necessary to complete this maneuver in such a small canyon. Any delay in immediately entering a steeply banked turn would have further decreased any chance the aircraft might have had to escape from this canyon.

6. That Mr. Burns entered this canyon in the wrong direction based on the prevailing winds at the time of the accident. Proper mountain flying techniques required that the aircraft should have entered the canyon away from the wind from the North side and then made a right hand turn to escape from the canyon. While the winds in this area are normally from the Southwest during this time of year, weather reports and testimony from the U.S. West Helicopter pilot indicated that the winds were from the Southeast By entering the canyon on the South side, Mr. Burns exposed the aircraft to a more significant down draft factor.

DETAILS:

FINDINGS

1. The flight was authorized and approved.

2. SA Leveille was in current flight status.

3. SA Leveille was on duty at the time of the accident.

4. SA Leveille held a current medical certificate.(Item 28)

5. The flight Instructor Mr. Burns was current and qualified in the aircraft to act as Pilot-in-Command. (Items 10a, 27)

6. Drug/Alcohol screens were negative for both pilots. (Items 22-24)

7. The PIC Mr. Burns selected an area to perform the maneuver which lead to the accident that was unsuitable and unsafe.

8. SA Leveille had little, and most likely no experience in flying this particular type of aircraft.

9. No Behavioral, or Medical factors were found which might have been a factor in the crash.

10. One Environmental factor that may have played an unknown role in the Crash was the possibility of bright sunlight shining over the ridge line into the aircraft's windshield as the aircraft began the 'Box Canyon Turn' maneuver. (Item 26)

11. There was no indication of any type of engine malfunction, and the engine appeared to be operating normally prior to impact. (Item 11)

12. There was no indication of any type of aircraft breakup or control malfunction prior to impact. (Item 1)

13. There were no Air Traffic Control (ATC) factors involved with this accident.

14. There was no indication of fuel starvation or other fuel problems relating to the accident. (Items 1, 11)

15. There is no indication that the aircraft was being operated in an overweight condition, or outside of its normal Center of Gravity (CG) range.

16. A down draft, which most likely was occurring at the time of the accident, was a significant factor in the aircraft's 's inability to escape from the canyon within which the crash occurred once the 'Box Canyon Turn' maneuver was begun. (Item 26)

17. The teaching techniques that the Flight Instructor Mr. Burns was known to have utilized were contrary to accepted practices which the Federal Aviation Administration expects Certified Flight Instructors to utilize. FAA Publication AC-60-14 - Aviation Instructor's Handbook clearly requires that an instructor demonstrate a maneuver prior to the student performing the same maneuver. (Item 21)

18. There was no contract set between the FBI and Colorado Skyways describing the course of instruction to be given, setting minimum instructor or aircraft requirements, any standards of instruction, or any course completion requirements. (Item 18)

19. This course was not being appropriately monitored by ASOU, CIRG. (Item 6)

20. The vendor did not seek authorization from ASOU to use this particular type of aircraft for this course of instruction. (Item 6)

21. The Director of Training [redacted] was not aware that this type of aircraft was being utilized for this course. (Item 6) b6 b7C

22. The Flight Instructor, Mr. Burns was fairly inexperienced for giving this type of instruction in a very hostile environment with aircraft that were being operated at the limit of their performance capabilities.

Although Mr. Burns had acquired a reasonable amount of flight experience in his six years as a pilot and three years experience as a Certified Flight Instructor(CFI), he had limited experience in mountain flying. Before starting his employment with Colorado Skyways, all of his flight experience is reported to have taken place in Southern California. Perhaps because of this lack of experience, Mr. Burns has been characterized by students, and his fellow flight instructors as being very cautious when operating in mountainous areas. He was known to always operate his aircraft at higher altitudes than the other aircraft in his training flights during these mountain flying training flights.

FEDERAL BUREAU OF INVESTIGATION

Date of transcription 9/9/199

SA [redacted] who is assigned to the Washington Field Office, 601 4th Street NW Washington, D.C. 20535, was provided with the identity of the interviewing agent, and advised as to the nature of the interview. He subsequently provided the following information: b6 b7C

He has been a Bureau Pilot in Command with the FBI since 1998, and has accumulated approximately 4,100 total pilot flight hours with 3,100 hours in Single Engine Airplanes. He arrived in Colorado Springs Colorado on August 29, 1999 to attend a Bureau sponsored Mountain Flying Pilot Training course being conducted by Colorado Skyways, Colorado Springs Airport, Colorado. That evening, he met and went to dinner with Bureau SA Pilots [redacted] Los Angeles Division and Paul A. Leveille, El Paso Division, who were also attending the Mountain Flying course. b6 b7C

On August 29, 1999 all three pilots attended a ground training course which began at 8:00 a.m. and ended at Noon. SA [redacted] advised that he thought that the ground school training was taught by an instructor who had a "lot of mountain flying experience", and that he believed that the training was excellent and thorough. At the end of the ground training the pilots were briefed on maneuvers and route to be taken for the flight to be conducted the following day.

That evening the three pilots went out to dinner together to 'T' Bones restaurant. SA [redacted] does not recall that any of the pilots had any type of alcoholic beverage. The three pilots retired to their hotel, the Residence Inn at Colorado Springs Airport, at approximately 8:30 p.m.. b6 b7C

On the morning of September 1, 1999 SA Leveille drove the three of them to Colorado Skyways arriving at approximately 6:50 a. m. When they arrived and met their flight instructors, SA Leveille's Flight Instructor, Chuck Burns, stated that because of Paul's size, they would be flying the Piper Archer as it was a bigger airplane. SA [redacted] advised that he thought that SA Leveille was comfortable with the idea of flying the Archer, and that he went gone outside to assist his instructor in the pre-flight of the Archer. SA [redacted] was assigned to fly with CFI [redacted] b6 b7C

Investigation on 9/3/99 at COLORADO SPRINGS, CO.

File # 66H-IR-A5346 Date dictated 9/9/99

by [redacted]

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in a Cessna C-172, N96319. SA [redacted] was paired up with CFI [redacted] to fly a Cessna C-172, N97890.

Before leaving to go fly, SA [redacted] heard some one of the instructors remark that he had checked the weather and that it was "severe clear" with calms winds at the airport. The three aircraft were placed on a VFR flight plan that was left with the Company flight dispatch. SA [redacted] aircraft was the first to depart and flew Westbound over an antenna farm at the NORAD Radar site before turning Southbound and following the Interstate 25 South toward Hayden Pass.

At approximately 8:15 a.m., the three aircraft began to individually cross Hayden Pass, which is approximately 12 miles Southeast of Salida, Colorado. As his aircraft crossed through Hayden Pass, SA [redacted] reported that the weather was clear, winds were light and there were no up or down drafts. As he crossed Hayden Pass, SA [redacted] reported that he saw SA [redacted] aircraft, but that he did not see SA Leveille's Piper Archer. At this time, the three instructors were talking to each other and they all agreed to start performing Box Canyon Turns. A few minutes later SA [redacted] heard Mr. Burns say over the radio that "I think we are going to try one over here." This was the last radio transmission that SA [redacted] heard from this aircraft.

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As SA [redacted] instructor began to demonstrate a Box Canyon Turn maneuver, SA [redacted] noticed a small defined area of white smoke to the left of his aircraft. He suggested to his instructor that they take a look at the location. His instructor agreed, and flew toward the smoke while unsuccessfully attempting to raise the Piper Archer being flown by Mr. Burns on the radio.

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After initially flying over the spot, the two pilots were unable to determine the source of the smoke. At this point SA [redacted] had the instructor turn the aircraft over into a left hand turn so that he could view the area through the telephoto lense of his 35mm camera. Through this view point SA [redacted] was able to see a fire blazing next to a small white object. SA [redacted] then took one roll of 35 mm color photos of this site.

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At this time CFI [redacted] asked the other aircraft to fly cover over the area while he flew to Salida Airport, which was the next intended point of landing for the course, to check

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and see if the Piper Archer had gone into that airport with radio problems. Upon checking with the UNICOM frequency at Salida Airport, the instructor was advised by Salida UNICOM, that no Piper aircraft had landed at that airport that morning. At this time, which was approximately 8:35 a.m., the pilot of an inbound Bell 206-L-3 Helicopter, N9379 piloted by [redacted] owned and operated by U.S. West Communications, who was inbound to Salida, asked if he could be of any service. [redacted] directed the helicopter to the site of the smoke. After arriving over the area, the pilot made several passes and at approximately 8:56 a.m. he confirmed that he could see the wreckage of an airplane seeing the wing a tail section, that the aircraft was fully engulfed in a fire, and that he could not see any survivors from the aircraft.

Again leaving the other Cessna C-172 over the crash site, Instructor [redacted] flew his aircraft back to Salida Airport and contacted Colorado Skyways to verify that the plane had not returned to Colorado Springs, and to then reported that it was missing and presumed to have crashed. After the Bell helicopter returned to Salida Airport, the pilot advised SA [redacted] that he had encountered strong down drafts in the canyon in which the aircraft had crashed. The helicopter pilot, [redacted] also provided G.P.S. coordinates of N38.23.5 by W105.57.85.

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After arriving at Salida Airport, SA [redacted] called FBI Aviation and Special Operations Unit, ASOU and advised SSA [redacted] that he believed that a training aircraft being flown by SA Paul A Leveille had crashed 9.5 miles Southeast of Salida Airport.

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FEDERAL BUREAU OF INVESTIGATION

Date of transcription 9/08/99

[redacted] Instructor Pilot, COLORADO SKYWAYS, 1777 Aviation Way, Colorado Springs, Colorado, telephone number (719) 574-2111, was interviewed at his place of business, where he provided the following information: b6 b7C

He has been employed as a Flight Instructor at COLORADO SKYWAYS since it first opened approximately four and one half years ago. Before that time, he worked out of the same building with an unrelated flight school, which called itself AEROTECH FLIGHT SERVICES. When AEROTECH FLIGHT SERVICES went out of business, [redacted] a fellow instructor pilot at AEROTECH, [redacted] which he called COLORADO SKYWAYS and took with him [redacted] as one of his staff instructors. [redacted] personally has over 4,600 total hours of flight time and possesses an Air Transport Pilot (ATP) Multi Engine rating, as well as a Commercial Single Engine Land Certificate. In terms of instructor certification, [redacted] has a Certified Flight Instructor (CFI) rating, as well as a Certified Instrument Flight Instructor (CFII) rating, and a Multi Engine Instructor (MEI) rating. b6 b7C

One of the contracts held by COLORADO SKYWAYS involves the training of FEDERAL BUREAU OF INVESTIGATION (FBI), Agent pilots in mountain flying techniques. During a portion of each summer, three Agents at a time begin their training in Colorado Springs on a Tuesday morning, following their Monday arrivals. At that time, Agents are given a ground school course presented by a COLORADO SKYWAYS instructor. During this past week, [redacted] a company employee, presented Special Agents (SAs) [redacted] and PAUL LEVEILLE with approximately four hours of instruction on mountain flying techniques, to include the route and procedures to be flown on the following day, Wednesday, September 1, 1999. [redacted] was not present during this briefing, since he had no active part to play, but was selected as one of three company instructor pilots to fly the Wednesday mission scheduled to begin briefing at approximately 7:00 a.m. As [redacted] remembers the morning brief for that day, good weather had been reported along their entire route of flight, which was expected to encompass some seven hours of flight time. Winds aloft were anticipated to be relatively light at seven knots for nine thousand foot winds, and fourteen knots b6 b7C

Investigation on 9/02/99 at Colorado Springs, Colorado

File # 66H-IR-A5346 Date dictated 9/02/99

by SA [redacted] b6 b7C

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for twelve thousand foot winds. Company Instructor Pilot (IP) [redacted] was paired up with SA [redacted] in one Cessna 172 while he, [redacted] was assigned [redacted] for the second Cessna 172. The third aircraft in the flight is a slightly higher powered PA 28 Archer, which was to be flown by company IP CHUCK BURNS, with SA PAUL LEVEILLE as his student.

This flight of three aircraft took off from Colorado Springs at approximately 7:30 a.m., with two to three minutes separation between each aircraft. After flying west of the Fort Carson restricted area, they joined the Arkansas River and Highway 50, and followed them westward to the Hayden Pass ridge crossing. Upon approaching the pass, all three aircraft began attempting to climb to higher altitudes and did this by catching thermals, which would help them as they circled in their efforts to climb. During this entire time, all three aircraft were in radio contact on common frequency 122.75, and by means of this communications method, [redacted] was able to learn that BURNS has obtained an altitude of 11,800 feet by 8:18 a.m. or so, when he passed through the Hayden Mountain Pass and into the valley on the far side. [redacted] and his other Cessna 172 partner, [redacted] had achieved slightly lower altitudes of approximately 11,400 feet, as they negotiated the Pass behind BURNS, who had the more powerful aircraft. b6 b7C

Upon arriving on the west side of the Pass, BURNS advised by radio that he was proceeding northbound for separation, and that he was going to stop and practice canyon turnouts with his student. At this time, about three to five miles separated each aircraft, as all three planes paused to practice their canyon turnout maneuvers. Approximately three minutes after this final call from BURNS, [redacted] saw smoke in the distance and began immediately calling over the radio for BURNS and LEVEILLE. When he received no response, [redacted] proceeded north on the theory that BURNS might have experienced a radio failure and flown the final ten miles to the Salida Airport. Before going to Salida, however, [redacted] saw smoke coming from the ground and flew directly overhead, so as to identify the source. Although he and his partner, SA [redacted] could see both smoke and a fire source, they were unable to identify any wreckage, and so they advised [redacted] by radio that they were going to land at Salida and determine whether BURNS and LEVEILLE had landed there with radio problems. Just before b6 b7C

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arriving at the airport, [redacted] spotted a helicopter which he spoke with on the Salida Unicom Frequency, in order to request assistance. The helicopter turned out to be the property of U.S. WEST COMPANY, and its pilot advised he was willing to proceed southbound to the source of the smoke and investigate. After several turns around the smoke, the pilot of the helicopter advised he could see wreckage below, to include the tail and wing of an aircraft, with the remainder of the aircraft engulfed in flames. The helicopter then returned toward Salida, where it landed and was met by [redacted] who spoke with the pilot on the ground, and learned that the pilot had encountered what he estimated to be 2,000 foot per minute down drafts in the vicinity of the wreckage. [redacted] and his Bureau student pilot then set about placing calls to various people, to include COLORADO SKYWAYS, which had already learned about the downed aircraft through Flight Service. [redacted] estimated that the crash must have occurred at approximately 8:30 a.m., some twelve minutes after he and the other aircraft had come through the Hayden Pass, and that the approximate altitude of the crash site would be somewhere above the 11,000 foot level, right at the timberline.

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[redacted] concluded this interview by stating that although he had never flown with BURNS, he was acquainted with this relatively new employee on a personal basis from their contacts at the office, and that he believed BURNS to be without medical or emotional problems. He also stated that BURNS, to the best of his knowledge, was not a user of either drugs or alcohol.

FEDERAL BUREAU OF INVESTIGATION

Date of transcription 01/18/00

[redacted] Instructor Pilot, COLORADO SKYWAYS, 1777 Aviation Way, Colorado Springs, Colorado, telephone (719) 574-2111, was re-interviewed by telephone at his place of business where he provided the following information: b6 b7C

He and his fellow COLORADO SKYWAYS Instructor Pilots are rarely able to get a good Pilot Report (PIREP) for their mountain flying routes because of their early morning departures before the Flight Service Station (FSS) has had any call ups to provide PIREPS from other pilots and also because there are so few pilots who fly the mountain ranges flown by COLORADO SKYWAYS at low altitudes.

When asked whether the SKYWAYS flight training curriculum covers specific aircraft performance at high altitude with reference to specific aircraft performance charts, [redacted] answered in the affirmative. Nevertheless, because of the high altitudes generally flown during these mountain training missions, many statistics which would be obtainable at lower altitudes are not covered for the higher altitudes. In fact, since aircraft at such altitudes are extremely lethargic in their performance, [redacted] and others have developed rules of thumb to cover situations where charts are not available for the specific circumstances encountered. For example, [redacted] generally teaches being sure of having at least 70 percent of rotation speed prior to the halfway point of the runway being used in order to guarantee successful stop before the end of the runway in the event of an abort or take off before the end of the runway if things are going well. Once airborne, climb performance data is available from any POH chart, and these figures are both shown and demonstrated to student pilots. b6 b7C

[redacted] advised that he recently walked to the September 1, 1999 crash site of the Piper Archer that was flown on that date by COLORADO SKYWAYS Instructor CHUCK BURNS and FEDERAL BUREAU OF INVESTIGATION (FBI) Special Agent (SA) PAUL LEVEILLE. [redacted] a Civil Engineer, estimated the distance across the box canyon to be approximately three quarters of a mile and therefore too narrow a confine in which to have safely executed a box canyon turnout. Both for this reason and the fact that the canyon appeared too narrow to him even from the air, he b6 b7C

Investigation on 01/13/00 at Colorado Springs, Colorado (telephonically)

File # 66H-IR-A5346 Date dictated 01/14/00

by SA [redacted] b6 b7C

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would not have selected that same canyon for practice box canyon turnouts.

[redacted] advised that his normal procedure for all student flights is to first demonstrate a box canyon maneuver either in a wide and safe box canyon or on the valley floor in a simulation of a box canyon turnout. Following this demonstration the student is invited to accomplish the maneuver he has just witnessed. The week prior to the fatal accident of September 1, 1999, [redacted] flew with a Special Agent whose first name was [redacted] LAST NAME UNKNOWN (LNU) on August 25, 1999 along essentially the same mountain route that COLORADO SKYWAYS instructors always use for their FBI student pilots.

There are no practical test standards for a box canyon maneuver and so the successful completion of such a maneuver by an FBI student pilot is determined subjectively. For example, did the pilot reverse his direction by 180 degrees and roll out within roughly 10 degrees of the desired outbound heading? Also did he avoid losing altitude and coming in contact with the simulated terrain or at least lose a minimal amount of altitude if airspeed was low at the initiation of the maneuver? [redacted] teaches this maneuver by setting up an approximate 80 knot entry speed with flaps down 10 degrees. A modified chandelle at no greater than 60 degrees is then initiated with an attempt being made to climb while turning. [redacted] stated he does not use a checklist to follow along with each maneuver flown but it is his practice to use a checklist for flying the actual aircraft.

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[redacted] received his initial mountain flying check out in 1987 through ARROW AVIATION in Colorado Springs. This course, which [redacted] paid for himself, involved both a ground school and a flight through the mountains of Colorado. In 1990 [redacted] received a second mountain flying check out through AEROTECH FLIGHT SERVICES, a company which he worked for as an instructor before coming to COLORADO SKYWAYS. This second check out involved a seminar and then a flight with an instructor in the mountains. [redacted] frequently flew with [redacted] present Owner/Operator of COLORADO SKYWAYS, and noted that both flew with AOPA pilots over the years. Probably because he and [redacted] knew one another so well a ground school class for [redacted] was all that was required of him before he began his instructing career with COLORADO SKYWAYS sometime after it's formation in 1994.

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FEDERAL BUREAU OF INVESTIGATION

Date of transcription 09/27/99

[redacted] Director of Flight Training, ASOU, FBI was advised as to the nature of the interview and provided the following information. b6 b7C

[redacted] has been employed as the Director of Flight Training by the FBI since December of 1993. In 1995 he began to solicit vendors to provide a Pilot Mountain Flying training course for Bureau pilots in the Colorado area. At this time two of the vendors who provided such training, Emery Aviation College and Johnson & Johnson Educational Systems were going out of business. Both of these vendors recommended Colorado Skyways in Colorado Springs, Colorado. [redacted] stated that he did not contact the Airplane Owner and Pilots Association (AOPA) a vendor that had previously provided Mountain flying training to the FBI based on his prior experience with them, and their requirement to use Bureau aircraft and conduct large courses with 24 Bureau pilots at a time.

[redacted] met with the owner of Colorado Skyways, [redacted] after viewing the flight operations, [redacted] was impressed with Colorado Skyways and thought that they had a good cadre of instructor pilots. In setting up the curriculum for the course, [redacted] decided that Cessna 172s would be utilized for the training with the provision that larger sized pilots could opt to fly a larger Cessna 182RG. [redacted] choose the Cessna 172 in order to provide the pilots with more of a challenge in flying the course. b6 b7C

In setting up the course, [redacted] requested that part of training flight include landing at Telluride, Colorado. He realized that doing this might require a flight of seven to seven and half hours in one day, but he thought that having Telluride included in the flight program was worth the extra long training day. [redacted] also set a formal requirement with Colorado Skyways to only utilize experienced flight instructors to provide training to the Bureau pilots undergoing this course. b6 b7C

[redacted] asked that [redacted] that based on weather if all of the areas to be flown to could be accessed then the training should be accomplished in one day. This would allow for a weather day. [redacted] thought that if the training b6 b7C

Investigation on 09/23/99 at Phoenix, Arizona (telephonically)

File # 66H-IR-A5346 Date dictated 09/24/99

[redacted] b6 b7C

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were broken up into two days it would require too many extra flight hours to fly into all of the locations that he wanted the pilots experience. [redacted] also told [redacted] that the Flight Instructors should not push the Bureau pilots into too long of a day.

On the advice of [redacted] Aviation Program Manager ,ASOU rather than sign a contract, a purchase order for $19,000 was let with Colorado Skyways to train 25 Bureau pilots per summer in Mountain Flight Training.

After setting the Purchase order, [redacted] stated b6
that he requested [redacted] to allow him to periodically go to b7C
Colorado Spring to monitor the course, and that [redacted] refused this request. During the next three years [redacted] frequently asked [redacted] to come out to evaluate the training being given by Colorado Skyways. On one occasion when [redacted] was returning from monitoring the Bureau sponsored Pilot maintenance course at Santa Maria, California (This is a non-flying Pilot maintenance course which is normally monitored by ASOU personnel), he asked to be allowed to stop off in Colorado Springs to review the ongoing training. [redacted] again refused his request telling him that he could adequately monitor the results of the training through the pilot evaluations sheets, which were completed at the end of each course and passed through Colorado Skyways to ASOU.

[redacted] advised that he closely monitored the b6
responses for the pilot evaluations, and that only one pilot b7C
complained about having all of the flying completed in one day. Also as a result of poor pilot evaluations [redacted] had one of the Flight Instructors removed from the course.

[redacted] also advised that he was unaware that Colorado Skyways was utilizing a low wing Piper Archer in place of the Cessna 182RG. He further stated that he might not have objected to the use of this airplane, provided that the pilot was allowed to complete a few touch and go patterns in the aircraft before flying into the mountains.

66H-IR-A5346

DETAILS - INDEX

1. FD-302 of SA [redacted] Investigation of crash site of Piper PA-28-181, N4366D on 9/2/99 b6 b7C

2.FD-302 of SA [redacted] student pilot Colorado Skyways Cessna N97890 by SA [redacted] on 9/1/99

3. FD-302 of [redacted] Colorado Skyways Flight Instructor for Cessna C-172, N97890 by SA [redacted] on 9/2/99

3a. FD-302 of re-interview of [redacted] Colorado Skyways Flight Instructor for Cessna C-172, N97890 by SA [redacted] on01/18/00 b6 b7C

4. FD-302 of SA [redacted] student pilot, Colorado Skyways Cessna C-172, N 96319 on 9/1/99 by SA [redacted] on 9/1/99

5. FD-302 of [redacted] Colorado Skyways Flight Instructor for Cessna C-172, N96319 by SA [redacted] on 9/2/99

5a. FD-302 of re-interview [redacted] Colorado Skyways Flight Instructor for Cessna C-172, N96319 by SA [redacted] on 01/18/00 b6 b7C

6. FD-302 of interview of [redacted] FBI, ASOU, Director of Flight Training by SA [redacted] on 09/23/99.

7. FD-302 of SA [redacted] FBI student pilot, who flew with CFI Charles Burns on 8/24/99, by SA [redacted] on 10/8/99.

8. FD-302 of SA [redacted] of events occurring on 9/1/99 by SA [redacted] b6 b7C

9. FD-302 of SA [redacted] of events occurring on 9/1/99 by SA [redacted]

10. FD-302 of [redacted] of Colorado Skyways Company by SA [redacted] on 9/ 2/99

10a. Four pages of Colorado Skyways Company pilot data information supplied to SA [redacted] by [redacted] as noted in above FD-302. b6 b7C

11. FD-302 of Engine Tear down of Lycoming O-360-34M engine from Piper PA-28-181, N4366D at Beegles Aircraft Services Inc, Greeley, Colorado on 10/20/99 by SA [redacted] with copies of related aircraft documents provided by National Transportation Safety Board Investigator in Charge [redacted]

a.. Copy of Aircraft Service Registration and Equipment Identification for Piper PA-28-181Registration Number N4366D, Serial Number 28-8490088

b. Avionics Maintenance ADLOG for Piper PA-28-181 Serial #28-8400088 (4p)

c. Propeller Maintenance ADLOG for Piper PA-28-181 Serial #28-8400088 Hub Serial # 27514K (54p)

d. Airframe Maintenance ADLOG for Piper PA-28-181 Serial #28-8400088 (10p)

e. Weight and Balance forms for Piper PA-28-181 Registration No N4366D (5p)

f. Engine Maintenance ADLOG for Piper PA-28-181 Serial #28-8400088 Engine serial # L-27490-36A (13p)

g. Engine camshaft serviceability tag for Lycoming Camshaft Model 76097 Serial # S93187-1 (2p)

h. ADLOG list of Applicable Airworthiness Directives for PA-28-181 Serial # 28-8400099 Reg No. N4366D

i. Copy of FAA registration certificate and Standard Airworthiness Certificate for Piper PA-28-181 Registration # N4366D Serial # 28-84900088

12. Investigative insert of SA [redacted] regarding maintenance records of Piper Archer PA 28-181, N4366D from Federal Aviation Administration Inspector [redacted] b6 b7C

13. NTSB preliminary report dated 09/01/99 on the crash of a Piper PA28-181, N4366D.

14. Copy of Voluntary Statement of [redacted] by the Saguache County Sheriffs Department dated 09/01/99.

14a. Copy of Voluntary Statement of [redacted] by the Saguache County Sheriffs department dated 09/01/99

14b. Saguache County Sheriffs Department Radio/Telephone log dated 09/01/99

15. FAA Northwest Regional Operations Center preliminary accident report on Piper PA28-181, N5366D dated 09/01/99.

16. FD-302 of interview of FAA Aviation Safety Inspector [redacted] by SA [redacted] dated 10/21/99 b6 b7C

17. Technical report by Textron Lycoming Air Safety Investigator [redacted] dated 11/04/99. regarding Lycoming aircraft power plant type O-360-A4M Serial No L-27490-36A. (9p)

18. FBI Purchase Order requisition # 797530 dated 09/12/98 for Mountain Flying Training for twenty five (25) Bureau pilots by Colorado Skyways Co. approved by [redacted] with attached one page justification sheet. b6 b7C

19. Copy of Electronic Communication from SA Paul A. Leveille to SSA [redacted] ASOU applying for entry into the Bureau's Field Helicopter Program dated 08/11/99.

20. Copy of two pages of Chapter 5 of FAA AC 61-23C - PILOT'S HANDBOOK OF AERONAUTICAL KNOWLEDGE.

21. Copy of two pages of Section one: General\Chapter V. Teaching methods of FAA AC-60-14.

22. Copy of FAA 'FINAL FORENSIC TOXICOLOGY FATAL ACCIDENT REPORT' on Charles L. Burns by [redacted] completed on 09/22/99, b6 b7C

23. Copy of El Paso County Coroner's Office pathology report on Charles Burns completed by El Paso County Coroner [redacted] on 09/02/1999.

24. Copy of FAA 'FINAL FORENSIC TOXICOLOGY FATAL ACCIDENT REPORT' on Paul A. Leveille by [redacted] completed on 09/22/99,

25. Copy of El Paso County Coroner's Office pathology report on Paul Leveille completed by El Paso County Coroner [redacted] on 09/02/1999.

26. FD-302 of [redacted] U.S. West Helicopter pilot who flew over the accident crash site on 09/1/99. b6 b7C

27. Copy of FAA Airmen Certification system Airmen Inquiry for Charles Lloyd Burns dated 09/01/99.

28. Copy of FAA Airmen Certification system Airmen Inquiry for Paul Andrew Leveille dated 09/01/99.

29. Copy of a 1:24 000 scale map of the crash site area for Piper PA-28-181 N4366D

30. Copy of six (6) page Syllabus of Mountain Flying Course utilied by Colorado Skyways provided by [redacted] b6 b7C

31. Copy of National Transportation Board (NTSB) Factual Aviation Report NTSB ID: DEN99FA157, Aircraft N4366D occurring on 09/01/99 at Villa Grove. Co.

32. Copy of three pages of textbook 'MOUNTAIN FLYING' by Doug Geeting and Steve Woerner, that was utilized by Colorado Skyways as part of their Mountain Flying training course.

33. Copy of STATEMENT OF PARTY REPRESENTATIVES TO NTSB INVESTIGATION

34. Copy of National Transportation Safety Board RELEASE OF AIRCRAFT WRECKAGE.

35. Map of probable flight path of Piper PA28-181, N4366D.

36. Two (2) photographs of Piper PA 28-181, N4366D provided by Colorado Skyways

37. Photo log dated 09/01/99 of SA [redacted] b6 b7C
37-1 thru 35-5 - ten (10) crash scene photographs.

38-1 thru 38-3 - Six (6) photographs of crash scene and other involved aircraft taken by SA [redacted] on 09/01/99.

39. Photo Log by Textron Lycoming Air Safety Investigator [redacted]
39-1 thru 39-24 - fifty-seven (57) photographs of crash scene, aircraft wreckage, and engine tear down.

40. Photo Log by Piper Aircraft Air Safety Investigator [redacted]
40-1 thru 40-44 - eighty-four (84) photographs of crash scene, aircraft wreckage, and engine tear down.

FEDERAL BUREAU OF INVESTIGATION

Date of transcription 10/08/99

Special Agent (SA) [redacted] FEDERAL BUREAU OF INVESTIGATION (FBI), Atlanta, Georgia, telephone number (404) 679-6263, was interviewed at his place of business where he provided the following information: b6 b7C

He is a part-time pilot for the Atlanta Flight Operation with a flying background which includes a Single Engine Land Commercial Certificate with Instrument Rating as well as a Helicopter Commercial Certificate and Multi Engine Aircraft rating. His undergraduate degree was obtained from Embry-Riddle University in Florida, a school specializing in aeronautical related degrees. Following his graduation with a B.S., [redacted] went to pilot training with the U.S. Army where he obtained his helicopter background. To date, [redacted] has approximately 800 hours of total time and has been employed as a Special Agent with the FBI since September 15, 1996. b6 b7C

On August 22, 1999, SA [redacted] flew by commercial airline to Colorado Springs, Colorado, where he was scheduled to attend the Bureau's Mountain Flying School beginning Tuesday, August 24, 1999. At that time, SA [redacted] reported for four hours of classroom instruction along with two other FBI Agents, [redacted] of Los Angeles, and [redacted] of Miami. [redacted] was the classroom instructor for this program which included a description of the route to be flown the following day along with techniques for the flight and mountain weather. [redacted] did a thorough job of instruction, and appeared well versed with his subject matter. The following day, Wednesday, 25 August, SA [redacted] reported to the flight school early where he was introduced to CHUCK BURNS, his Instructor Pilot (IP) for the day's mission. BURNS and [redacted] were assigned to fly in a Piper Archer since it had more weight carrying capability and would be required to carry a third person in the back seat, [redacted] a new IP to the school. SAs [redacted] and [redacted] were assigned to school IPs [redacted] and [redacted] respectively. b6 b7C

The three ship mission departed Colorado Springs Airport early Wednesday morning and began flying southbound along a major highway before turning westbound to follow another highway and river toward the Hayden Mountain Pass some 45 minutes west of Colorado Springs. SA [redacted] was in the left seat during b6 b7C

Investigation on 10/04/99 at Atlanta, Georgia

File # 66H-IR-A5346 Date dictated 10/05/99

by SA [redacted]

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FEDERAL BUREAU OF INVESTIGATION

Date of transcription 09/13/99

On Monday, August 30, 1999, I arrived at Colorado Springs, Colorado to attend "Mountain Flying School", conducted by Colorado Skyways. After checking in at the Radisson Hotel located at the Colorado Springs Airport, I contacted [redacted] Colorado Skyways. [redacted] showed me his facilities and introduced me to members of his staff. [redacted] gave me a package containing a welcome letter, book of mountain flying, and information on the following day's mountain flight training. [redacted] then gave me additional packets for Special Agents [redacted] and Agent Paul A. Leveille. Special Agents Leveille and [redacted] met with me in the lobby of the hotel and we exchanged information about the following day's class and the location of the Colorado Skyways facilities. b6 b7C

The following morning, Tuesday, August 31, 1999, Special Agents Leveille, Agent [redacted] and I arrived at Colorado Skyways for our first class at approximately 8:00 a.m. This class consisted of information on mountain flying, weather, aerodynamics, mountain flying maneuvers, and a comprehensive brief of the following day's flight in and around the Colorado mountains. This brief consisted of airport information, elevations, frequencies, and alternate routes should the weather be too poor to complete our flight. b6 b7C

Special Agents, Leveille [redacted] and I met the following morning, Wednesday, September 01, 1999, at approximately 6:00 a.m. and arrived at Colorado Skyways at approximately 6:45 a.m. We were met by Certified Flight Instructors, (CFI) Charles L. Burns, [redacted] and [redacted] The flight instructors contacted the Flight Service Station (FSS), for weather briefs and left a detailed flight plan of the proposed flight at the front desk. SA Leveille was told he would be flying in the Piper Archer, (PA28-181), registration number N4366D, with CFI Charles L. Burns. Special Agent [redacted] flew with CFI [redacted] in a Cessna 172, registration number N97890, and I flew with CFI [redacted] in a Cessna 172, registration number N96319. Preflights were completed on all aircraft before departure and Special Agents Leveille [redacted] and I sat in a Pilot in Command (PIC), (left seat) of each respective aircraft and the CFI sat in the right seat. All aircraft were started, and received clearances for taxi and takeoff. CFI [redacted] and I were the first to depart after a runup and brief of our flight. We departed the area communicating with Colorado Springs Air Traffic Controllers, and flew to Cheyenne Mountain avoiding the restricted area located just to the south of our position. We were given a frequency change and switched to contact the other aircraft on an air-to-air common frequency. Flight instruction during the flight consisted of information about the area, weather, mountain flying maneuvers and the dangers of mountain flying. Our route of flight took us through the Colorado Mountains, around the Florence area, and along the b6 b7C b6 b7C

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Arkansas River to Hayden Pass. All three aircraft then began circling and using thermals to gain altitude in order to overfly Hayden Pass. When my aircraft was at approximately 11,400 feet approaching the pass, we were advised by CFI Burns that they were crossing the pass at approximately 11,800 feet. CFI [redacted] and I both looked for the aircraft and were unable to see it at any time. We crossed the pass and began flying north along the mountain range we had just crossed to our immediate right, and an open area to our immediate left towards Salida Airport. The flight instructors began discussing the use of the mountain range to our right to complete "box canyon turns". CFI [redacted] and I were flying away from the mountains when I saw a defined plume of smoke on the side of a mountain just north of our position. I pointed it out to CFI [redacted] and we flew towards the location to identify the source of the smoke. While en route, we observed an intense fire at the treeline and CFI [redacted] notified CFI [redacted] After numerous attempts, we were unable to contact CFI Burns or Special Agent Leveille on the aircraft radio. We initially orbited the fire on CFI [redacted] side of the aircraft and then switched sides. As we switched sides, I began photographing the fire with a telephoto lens, while attempting to locate the source of the fire. While orbiting, I observed a white object just to the right side of the intense fire. The site of the fire was believed to be at approximately 11,500 feet and was on the side of an extremely steep mountain. CFI [redacted] and Special Agent [redacted] were told of the fire and were also en route to the location. CFI [redacted] and I switched to emergency frequency 121.5, attempting to listen for an emergency locator transmitter signal and were unable to hear a beacon. Initial identification of the fire was estimated to be at approximately 8:20 a.m. CFI [redacted] and I then flew to Salida Airport while CFI [redacted] and Special Agent [redacted] orbited over the location.

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As we were inbound to Salida Airport, we transmitted on the Unicom Frequency and asked if a Piper Archer had landed at that field. [redacted] the Fixed Base Unicom Operator instructed us that two other aircraft had landed, but the Archer had not. CFI [redacted] then told [redacted] that an aircraft in our flight was missing. At approximately 8:35 a.m., a Bell 206 L3 Helicopter, registration number N937S was inbound to Salida Airport flown by [redacted] and crewed by [redacted] of U.S. West. [redacted] was requested to assist us identify the crash site and flew to the location. At approximately 8:56 a.m., the helicopter arrived at the fire site and reported that he believed the fire to be that of an airplane. [redacted] said he could see the wing and tail section of an aircraft engulfed in the fire. He said that there appeared to be no surviviors. He then gave the GPS position of the wreckage, as latitude 38 23.5' north and longitude 105 57.85' west. He estimated the accident scene to be at the 145-degree bearing, 9.6 nautical miles from the Salida Municipal Airport. CFI [redacted] and Special Agent [redacted] made a Mayday Call that was relayed by United Flight Number 169 to Federal Aviation Administration Air Traffic Control Facilities. CFI [redacted] and Special Agent

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[redacted] continued orbiting the location. CFI [redacted] and I landed at the Salida Airport to report the incident. [redacted] notified the local Sheriff about the accident. CFI [redacted] called Colorado Skyways to verify that CFI Burns and Special Agent Leveille had not returned to Colorado Skyways, and was told they had not. I immediately contacted the Aviations Special Operations Unit (ASOU), notified them of the situation. ASOU coordinated assistance to the crash site. [redacted] arrived at Salida Airport and gave detailed information about the crash site. Special Agents from the Denver FBI Office, Colorado Springs, Pueblo Resident Agency and the Sheriff's Office were en route to the crash site. Also assistance from the United States Army Helicopter Unit at Ft. Carson Colorado, was enroute to the site to assist in the recovery effort and a command post was established. b6 b7C

On Thursday, September 2, 1999, Special Agent [redacted] and I assisted FBI accident investigators Special Agen [redacted] and Supervisory Special Agent [redacted] at the crash site. I assisted Special Agent [redacted] logging photographs of the scene and diagraming the crash site. Later that day Special Agent [redacted] and I gave statements to [redacted] the accident investigator from the National Transportation Safety Board. Special Agent [redacted] and I returned to our respective divisions the following day. b6 b7C

FEDERAL BUREAU OF INVESTIGATION

Date of transcription 10/14/1999

On September 1, 1999, at 6:50 AM, SA [redacted] b6 b7C along with SA [redacted] and SA Paul A Leveille, arrived at Colorado Skyways Company, 1777 Aviation Way, Colorado Springs, CO, (719) 574-2111, for a scheduled mountain flying training flight.

At Colorado Skyways, agents met with three Flight Instructors; [redacted] and Chuck Burns. After the agents introduced themselves, Flight Instructor (FI) Chuck Burns stated that SA Leveille should fly with him in the Piper Archer due to SA Leveille's size. One of the instructors stated that he had checked the weather and that conditions were good for the flight.

FI Chuck Burns stated that he was going to preflight the plane. SA Leveille told FI Burns that he would help with the preflight. FI Burns and SA Leveille exited the building together. SA [redacted] went with FI [redacted] and SA [redacted] was with [redacted] b6 b7C SA [redacted] and FI [redacted] walked over to a CESSNA Skyhawk, C-172, N97890. SA Leveille was standing near a Piper Archer, N4366D. SA [redacted] and FI [redacted] walked towards a second CESSNA Skyhawk C-172.

FI [redacted] told SA [redacted] that he had preflighted the aircraft. SA [redacted] got in the left seat and FI [redacted] was in the right seat. FI [redacted] handed SA [redacted] a C-172 checklist, and they proceeded to go through it together. FI [redacted] told SA [redacted] that he would handle the radios and have SA [redacted] do the flying. FI [redacted] also stated that, if SA [redacted] needed any assistance during the flight, he would be there to help.

At approximately 07:20 AM, ATIS at Colorado Springs Airport reported impart:

Information Hotel, winds calm, sky 12,000, scattered, altimeter 301.3.

Investigation on 09/01/1999 at Colorado Springs, CO

File # 66H-IR-A-5346 Date dictated 09/15/1999

by SA [redacted] b6 b7C

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After completing the preflight checklist, SA [redacted] and FI [redacted] departed Colorado Springs Airport via runway 17R at approximately 07:30 AM. SA [redacted] and FI [redacted] were the first to depart while SA Leveille and FI Burns were third in a flight of three aircrafts.

SA [redacted] and FI [redacted] headed Southwest, through the Fremont MOA climbing to 8,500 feet. After reaching the Arkansas River, SA [redacted] and [redacted] turned to follow the river towards the West. While navigating along the river, FI [redacted] and Burns were talking to each other via the aircraft's radio.

Near Coaldale, CO, the three aircraft headed toward Hayden Pass. This pass has an elevation of 10,709 feet. SA [redacted] made several climbing turns to 11,800 feet. SA [redacted] aircraft was observed making climbing turns before crossing the pass. SA Leveille and FI Burns' aircraft was not observed. FI Chuck Burns reported that they were through the pass. SA [redacted] and FI [redacted] were the second aircraft to go through. SA [redacted] and FI [redacted] were in the third aircraft to go through Hayden Pass.

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After clearing Hayden Pass, the three aircraft turned North to follow the Sangre De Crist Mountains. FI [redacted] took control of the aircraft to demonstrate a terrain flying technique approximately 500 feet below the mountain tops. FI [redacted] returned the control of the aircraft back to SA [redacted] to have him practice the maneuver. The other two aircrafts were not observed.

SA [redacted] practiced terrain flying for approximately 2-3 miles, when FI Chuck Burns reported that he was looking for a canyon to practice box canyon maneuvers. This was the last communication that SA [redacted] heard from SA Leveille and FI Burns' aircraft.

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FI [redacted] told SA [redacted] to fly away from the side of the mountain range, in order to locate an area to practice box canyon maneuvers. FI [redacted] spotted a wide shallow canyon and told SA [redacted] to set up for a chandelle maneuver. SA [redacted] entered the canyon on the right side and completed the chandelle. FI [redacted] instructed SA [redacted] to perform a 60° degree bank turn after slowing to maneuvering speed and using 10° degree of flaps. SA [redacted] started the maneuver from the right side of the canyon and exited on the left.

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At approximately 08:20 AM, FI [redacted] reported to FI [redacted] that he and SA [redacted] had spotted smoke on the side of the mountain near their location. FI [redacted] asked FI [redacted] if he had heard anything from FI Chuck Burns. FI [redacted] replied negative. FI [redacted] said that he and SA [redacted] would check out the smoke and try to get in contact with FI Burns.

FI [redacted] demonstrated the third maneuver, a hammerhead. During the three maneuvers, no significant down drafts or turbulence were encountered.

FI [redacted] informed FI [redacted] that he was unable to contact FI Burns. FI [redacted] told FI [redacted] that he and SA [redacted] would head toward their location.

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FI [redacted] asked FI [redacted] if he heard an emergency locator transmitter (ELT). FI [redacted] replied negative. SA [redacted] and FI [redacted] were monitoring Feq. 121.5 during the flight.

When SA [redacted] and FI [redacted] arrived in the area of the reported smoke, FI [redacted] stated that he was unable to contact FI Burns and could not identify what was causing the smoke. FI [redacted] said that he would go to Salida Airport to see if FI Burns had landed there. FI [redacted] told FI [redacted] that he would circle over the smoke until FI [redacted] reported back to him.

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SA [redacted] observed the smoke approximately 700-800 feet below the mountain top, near the edge of the tree line. There was white smoke with an active fire burning. SA [redacted] and FI [redacted] could not see the cause of the fire.

At approximately 08:40 AM, FI [redacted] reported that a helicopter from Salida was heading towards the area of the smoke. FI [redacted] informed the helo pilot where to look for the smoke.

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At approximately 08:45 AM a Bell 206 Long Ranger helicopter was observed by SA [redacted] and FI [redacted] flying over the area of the smoke. The pilot of the helicopter confirmed that the smoke was from a crashed aircraft. The helo pilot also reported that he was in a strong down draft near the crash site. After confirming the smoke was from a downed aircraft, the helicopter returned to Salida Airport.

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At 08:50 AM IA [redacted] transmitted a Mayday call on Feq. 121.5. FI [redacted] stated that an aircraft was down approximately 10 miles South of Salida, Colorado, and that assistance was needed.

SA [redacted] and FI [redacted] continued to circle over the crash site when United Airlines Flight 169 (UA-169) responded to the Mayday call. UA-169 said they would inform Denver Center about the downed aircraft and its location. A Federal Express (FEDEX) jet also responded to the Mayday.

While circling over the crash site, SA [redacted] noticed that the smoke would change direction. The wind would carry the smoke up the mountain, then change 180° to go down the mountain. This wind change occurred several times while A [redacted] and FI [redacted] circled over the crash site. There were lenticular cloud formations over the mountain tops near the crash.

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Approximately 30 minutes after the crash, SA [redacted] took 35mm pictures of the crash site from 12,500 feet.

SA [redacted] and FI [redacted] circled the crash site for two hours until their fuel ran low. They landed at Salida Airport to refuel and meet with SA [redacted] and FI [redacted] to discuss rescue efforts. A Colorado State Police CESSNA C-182 Skylane circled the area of the crash for an additional 30-45 minutes and also landed at Salida.

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SA [redacted] SA [redacted] FI [redacted] and FI [redacted] returned to Colorado Springs Airport in their C-172's at approximately 3:00 PM, September 1, 1999.

FEDERAL BUREAU OF INVESTIGATION

Date of transcription 9/08/99

[redacted] of COLORADO SKYWAYS COMPANY, 1777 Aviation Way, Colorado Springs, Colorado 80916, was interviewed at his office, where he provided the following information: b6 b7C

He and his wife, [redacted] are the [redacted] of COLORADO SKYWAYS COMPANY, a Part 141 Flight Instruction Company, which has been operating out of Colorado Springs for the last four years. [redacted] is also the [redacted] of his company, while his wife serves as [redacted] and [redacted] COLORADO SKYWAYS has a business telephone number of (719) 574-2111. [redacted] home number is [redacted] and his pager number [redacted].

COLORADO SKYWAYS COMPANY is the only Part 141 Flight School in the immediate area. The vast majority of area flight schools operate under Part 61 of the Federal Aviation Regulations (FARs), since this requires less scrutinization by FAA Inspectors. [redacted] however, feels more comfortable holding himself and his corporation to the higher standards which Part 141 of the FARs represents. The company [redacted] and his wife own jointly employs five full time instructor pilots and six part time instructor pilots, plus additional clerical help. At present, [redacted] has a contract with the United States Air Force Academy, called Introductory Flying Training (IFT), which puts through fifteen students a month, each of whom receives forty hours of flight training. Additionally, [redacted] has a contract with the FEDERAL BUREAU OF INVESTIGATION (FBI), to put through eight groups of three agents at a time, during the months of August and September. On Monday of this week, August 31, 1999, three Agents arrived in Colorado Springs to start the fifth FBI class of the present year. [redacted] identified these agents as Special Agent (SA) [redacted] SA [redacted] and SA PAUL LEVEILLE. [redacted] noted that these three Agents did not complete the normal week of training because of a fatal aircraft accident which occured on September 1, 1999, involving SA LEVEILLE and CHUCK BURNS, a full time employee of COLORADO SKYWAYS. b6 b7C b6 b7C

BURNS was hired by COLORADO SKYWAYS in April, 1999, from his previous flying job in California. In May, 1999, BURNS received a mountain flying check out flight from SKYWAYS employee

Investigation on 9/02/99 at Colorado Springs, Colorado

File # 66H-IR-A5346 Date dictated 9/02/99

[redacted] b6 b7C

by SA [redacted]

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[redacted] although such flight check outs are not required by the FAA. Company records show BURNS had flown 291 hours in the last 90 days, and that his total time in all categories of aircraft was 2,858 hours, with 453 hours of cross country time. BURNS, who was born on February 12, 1942, received his Commercial Certificate in August, 1994. In February, 1996, he qualified for a Certified Flight Instructor (CFI) rating, and this was followed in May, 1998, with an Instrument Flight Instructor Certificate (CFII). BURNS received his latest Bi-annual Flight Review (BFR) in May, 1998, and an Instrument Competency Check (ICC) in March, 1999. In other words, company records reflect that BURNS was qualified and current at the time of his fatal accident.

[redacted] advised that all FBI training flights involve mountain training in the Colorado mountains, with three Bureau pilots leaving with three COLORADO SKYWAYS instructors in three different airplanes for a round robin cross country flight of approximately seven hours, with stops along the way for rest and food. Most often, [redacted] provides these flights with an ice chest of lunch food with a table cloth so as to allow all six pilots to enjoy a picnic lunch at one of the mountain airports they stop at as they fly their round robin mission. The aircraft always leave at brief intervals and remain within a few miles of each other during the course of the entire day for safety reasons. Additionally, a written flight itinerary is left in dispatch at COLORADO SKYWAYS, for possible use in the event of an overdue flight. The fatal flight which occurred on September 1, 1999, should have included the wreckage of the ice chest just described. (And it did.)

Although [redacted] has only known BURNS since April, 1999, his impression is that of a conservative pilot, who has no known drug or alcohol problems. Nor, as far as [redacted] is aware, did he have any personality conflicts with his wife, or any of the COLORADO SKYWAYS' employees with whom he worked.

[redacted] advised that he has worked hard over the years to establish a professional flying school, and that his efforts have included the use of frequent pilot meetings and training sessions. He also has taken to writing communications regarding safety to his employees, and including these memos with their regular paychecks. At present, [redacted] flies mostly stage checks for students going through his program, rather than daily

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training missions with them, and also standardization checks for his instructor pilot employees. All such employees receive one scheduled check ride per year, plus an occasional no notice ride with [redacted] BURNS had received two satisfactory check rides with [redacted] since April, 1999, when he first came to work with COLORADO SKYWAYS, and performed these check rides in a satisfactory fashion. [redacted] concluded by saying that BURNS was a good pilot who appeared to love his work, and was already talking about the possibility of buying into the company as an operating partner.

In addition to the above general comments, [redacted] provided a Direct User Access Terminal (DUAT) weather printout from his company's computer, reflecting the weather report which was obtained by the FBI flight, which departed on September 1, 1999. He also provided three pages of personnel file information relative to BURNS. These records were the pilot licensing and medical certificates for BURNS, as well as his pilot qualifications data sheet and a memo from [redacted] to BURNS confirming his latest pilot qualifications data.

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[redacted] advised that his company aircraft inventory before yesterday's crash included six 160 HP Cessna 172 Ps, one 180 HP Archer, one 235 HP Cessna 182 RG, and one Cessna 310 Twin. The C172s are usually flown as utility category aircraft when their gross weights are below 2100 pounds but could be considered normal category if they were loaded to the 2100 - 2400 pound level. The Archer which crashed yesterday would also be considered utility category when loaded at less than 2130 pounds but would likewise be a normal category aircraft if loaded to between 2130 - 2550 pounds.

COLORADO SKYWAYS COMPANY

PILOT DATA

Colorado Skyways is a division of Debalco Enterprises, Inc.

"Chuck"

Date 20 April 99

Pilot/Customer Charles L. Burns Telephone Res 719-597-5821 Ofc 719-574-2111

Res Address 4379 N. Carefree Circle City, State, ZIP Colorado Springs, Colorado 80917

Ofc Address 1777 Aviation Way City, State, ZIP Colorado Springs, CO 80916-2707

Type of Pilot Certificate Commercial Number 561582766 SSN 561-58-2766

Ratings Com SEL MEL Inst CFII Medical Class 2nd Date 2/99

Prev. flew with _____ Address _____

FLIGHT TIME/BFR

AIRPLANE SEL	2480
AIRPLANE MEL	30
ALL OTHER	
TOTAL	2510
INSTRUMENT	160
RETRACT GR	430
TAILWHEEL	20
BFR DATE	5/00

Checked by: _____ Date 4/20/99

CHECKOUT ENDORSEMENTS

Make & Model	Date	Endorsed by
C-172	4/20/99	
PA-28-181	5/12/99	
TR182	6/3/99	

Aerobatic Qualified

Mountain Qualified 5/12/99

Remarks _____

LAST FLIGHT																	
	4/20	6/3															

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COLORADO SKYWAYS COMPANY
1777 Aviation Way
Colorado Springs, CO 80916-2707

1 August 1999

MEMO TO: Chuck Burns

FROM: Director of Operations and Training

SUBJECT: Proficiency & Standardization Check Status

The data shown below is the latest I have on you. If any item is in error, please correct it on this sheet and return it to me or provide me with an updated PILOT QUALIFICATIONS DATA form so I may bring your status up to date. No changes will be made verbally. Get any checks or training due accomplished soonest.

	ITEM	STATUS	REMARKS
1.	CFI ASMEI expires 500	OK	
2.	MEDICAL Class 2 expires 200	OK	
3.	BIENNIAL FLIGHT REVIEW due 500	OK	
4.	PART 141 PROF/STAN CK due 400	OK	
5.	INT-TRK-HOLD-6/6 or IPC due 099	OK	
6.	TOTAL/XC FLYING TIME: ~~2508/377~~ 2858/453		

PILOT QUALIFICATIONS DATA

COLORADO SKYWAYS COMPANY

PILOT NAME Charles L. Burns AS OF DATE 16 April 99

ADDRESS 4379 N Cowfree Circle TELEPHONE 719-597-5827

Colorado Springs, CO 80917 BIRTHDATE 12 July 42

DATE OF LAST FAA PHYSICAL EXAM Feb 99 MEDICAL CLASS: 1 (2) 3

CERTIFICATES	DATE	NUMBER
Flt Instrctr - SEL	2/96	561582766
Flt Instrctr - MEL		
Instrumnt Instrctr	5/98	561582766
Ground Instructor		
Airline Transport		
Commercial Pilot	8/94	561582766

FLIGHT CHECKS	DATE	CK PILOT
Biennial Flt Revw	5/98	
Instrumnt Comp Ck	3/99	
6 Hrs/6 Approaches	12/98-4/99	
141 Chief Instrctr		
141 Asst Ch Instrc		
141 Stand Check	23 Apr 99	
135 Chief Pilot		
135 Pit in Command		
135 2nd in Command		

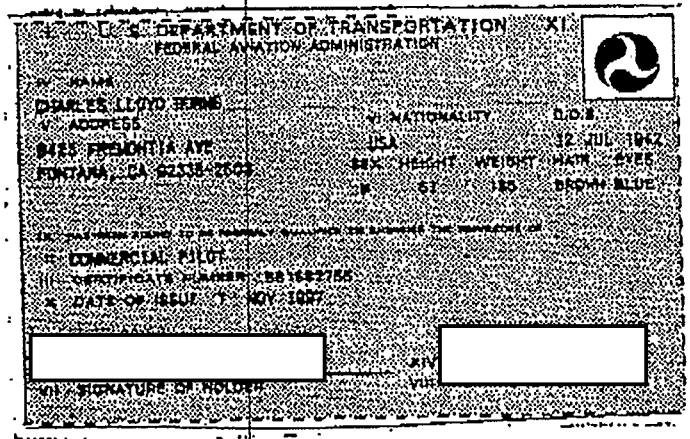
CLASSIFICATION OF PILOT FLYING TIME	LAST 12 MO	TOTAL
Flight Instructor	936.5	1834.9
Pilot (Incl Solo)	29.2	395.8
Copilot (Incl 2iC)	1.0	3.2
Student Dual	2.8	274.4
TOTAL TIME	969.5	2508.3

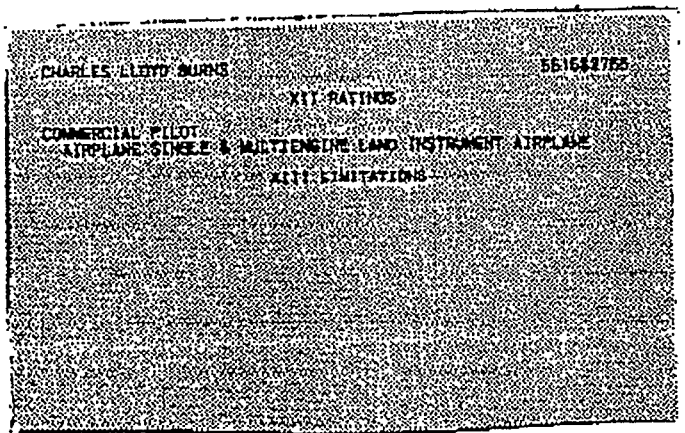
Actual Instrument	3.6	18.5
Instrument Hood	9.1	141.4
Simulator	4.6	32.0

Multi Eng - Jet		
Multi Eng - TProp		
Multi Eng - Conv	&	29.4
Single Eng - Jet		
Single Eng - TProp		
Single Eng - Conv	969.5	2478.9
Helicopter - Turb		
Helicopter - Conv		
Glider		

b6
b7C

Cross Country	97.3	376.5


1 U. S. DEPARTMENT OF TRANSPORTATION XI
FEDERAL AVIATION ADMINISTRATION
V NAME
CHARLES LLOYD BURNS
V ADDRESS
9423 FREMONTIA AVE
FONTANA, CA 92335-2509
VI NATIONALITY
USA
D.O.B.
12 JUL 1942
SEX HEIGHT WEIGHT HAIR EYES
M 67 135 BROWN BLUE
IX HAS BEEN FOUND TO BE PROPERLY QUALIFIED TO EXERCISE THE PRIVILEGES OF
COMMERCIAL PILOT
III CERTIFICATE NUMBER 551582755
X DATE OF ISSUE 7 NOV 1997
VII SIGNATURE OF HOLDER
XIV
VIII ADMINISTRATOR


CHARLES LLOYD BURNS 551582755
XII RATINGS
COMMERCIAL PILOT
AIRPLANE SINGLE & MULTIENGINE LAND INSTRUMENT AIRPLANE
XIII LIMITATIONS

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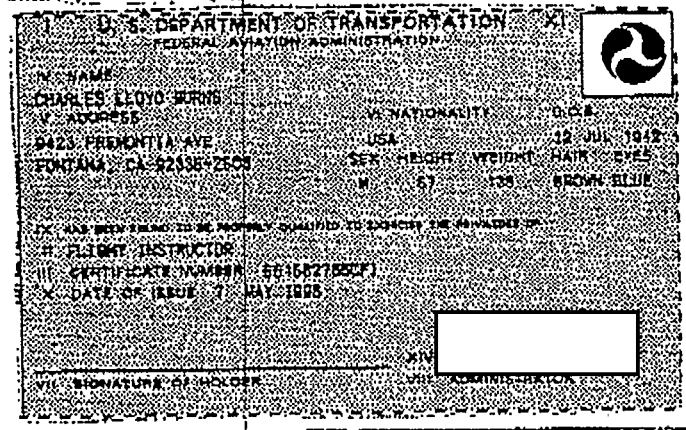
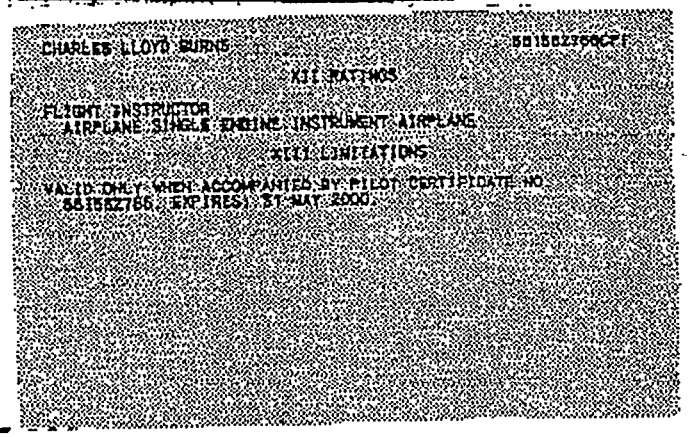

1 U. S. DEPARTMENT OF TRANSPORTATION XI
FEDERAL AVIATION ADMINISTRATION
V NAME
CHARLES LLOYD BURNS
V ADDRESS
9423 FREMONTIA AVE
FONTANA, CA 92335-2509
VI NATIONALITY
USA
D.O.B.
12 JUL 1942
SEX HEIGHT WEIGHT HAIR EYES
M 67 135 BROWN BLUE
IX HAS BEEN FOUND TO BE PROPERLY QUALIFIED TO EXERCISE THE PRIVILEGES OF
FLIGHT INSTRUCTOR
III CERTIFICATE NUMBER 551582755(CFI)
X DATE OF ISSUE 7 MAY 1995
VII SIGNATURE OF HOLDER
XIV
VIII ADMINISTRATOR


CHARLES LLOYD BURNS 551582755(CFI)
XII RATINGS
FLIGHT INSTRUCTOR
AIRPLANE SINGLE ENGINE INSTRUMENT AIRPLANE
XIII LIMITATIONS
VALID ONLY WHEN ACCOMPANIED BY PILOT CERTIFICATE NO 551582755 EXPIRES: 31 MAY 2000

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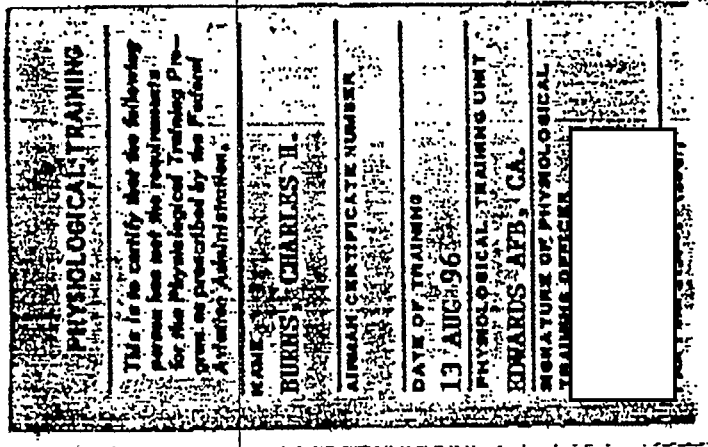
PHYSIOLOGICAL TRAINING
This is to certify that the following person has met the requirements for the Physiological Training Program as prescribed by the Federal Aviation Administration.
NAME
BURNS, CHARLES H.
AIRMAN CERTIFICATE NUMBER
DATE OF TRAINING
13 AUG 96
PHYSIOLOGICAL TRAINING UNIT
EDWARDS AFB, CA.
SIGNATURE OF PHYSIOLOGICAL TRAINING OFFICER

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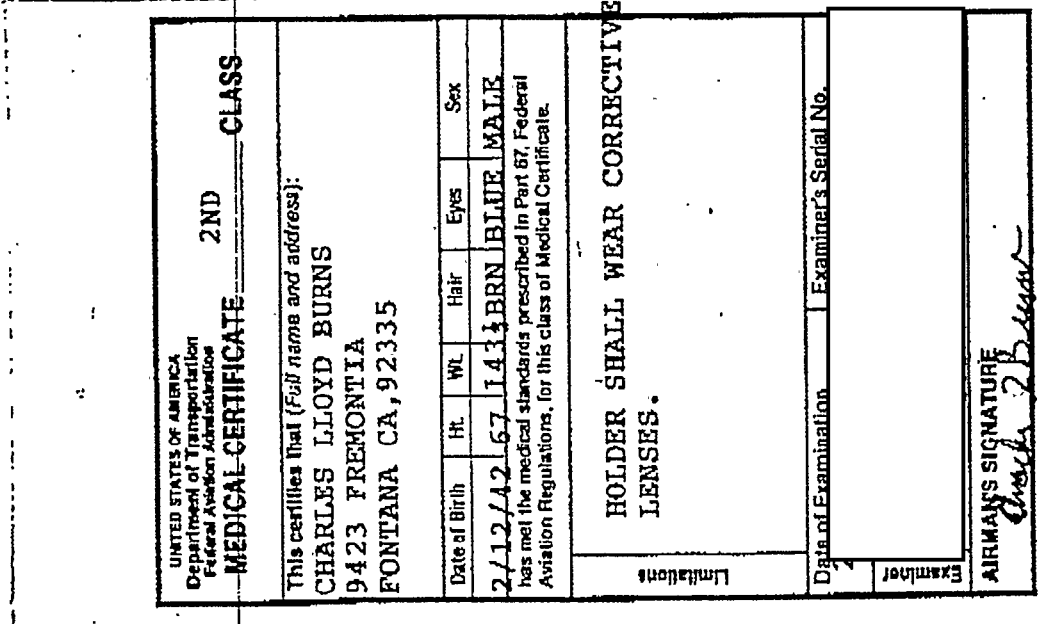
UNITED STATES OF AMERICA
Department of Transportation
Federal Aviation Administration
MEDICAL CERTIFICATE 2ND CLASS
This certifies that (*Full name and address*):
CHARLES LLOYD BURNS
9423 FREMONTIA
FONTANA CA, 92335
Date of Birth 2/12/42
Ht. 67
Wt. 143
Hair BRN
Eyes BLUE
Sex MALE
has met the medical standards prescribed in Part 67, Federal Aviation Regulations, for this class of Medical Certificate.
Limitations
HOLDER SHALL WEAR CORRECTIVE LENSES.
Examiner
Date of Examination
Examiner's Serial No.
AIRMAN'S SIGNATURE
FAA Form 8500-9 (7-90) Supersedes Previous Edition

FEDERAL BUREAU OF INVESTIGATION

Date of transcription 10/21/99

At the behest of the National Transportation Safety Board (NTSB) an engine tear down inspection was conducted on the engine from a Piper PA-28-181, N4366D which crashed near Salida, Colorado on September 1, 1999. The inspection was conducted at Beegles Aircraft Services Inc. 711 Crosier Ave. Weld County Airport Greeley, Colorado 80631 on September 20, 1999.

Present at the tear down inspection were the following representatives who are parties to this NTSB accident investigation:

[redacted]	NTSB Investigator in Charge FBI Piper Aircraft Lycoming Engines Beegels Aircraft FAA	b6 b7C

The engine a Lycoming O-360-A4M Serial #L-27490-36A had been recovered by Beegels Aircraft from the crash site near Salida, Colorado on September 3, 1999 and kept in Bonded storage at Beegles until the date of the tear down inspection.

The actual tear down of the engine was completed by [redacted] and [redacted] who are both FAA certified Airframe and Powerplant (A&P) mechanics, and was observed by the remaining members of the investigation team. b6 b7C

The tear down revealed that all engine components had been working properly. The spark plugs were removed from the engine and showed signs of normal operation. The oil pump, carburetor, fuel pump, and vacumn pump were also inspected and found to be in proper working order. Inspection of the cylinders, valve train, and pistons all showed normal, with the pistons showing no indication of being operated either too richly or in an over leaned condition.

Particular attention was paid to inspecting the engine's cam shaft as an FAA inspection of the aircraft ADLOG logbook indicated that the camshaft which had been installed during an engine overhaul by Aircraft Specialties Services, FAA

This document contains neither recommendations nor conclusions of the FBI. It is the property of the FBI and is loaned to your agency; it and its contents are not to be distributed outside your agency.

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certified repair station No. DD2R764K, on November 12, 1997 did not have a signature on the yellow service tag as required by FAA regulations. The inspection of the camshaft revealed the part to be functioning properly at the time of the crash.

The final analysis agreed to by all party members is that the engine appears to have been functioning normally at the time of the crash.

Aircraft Service Registration and Equipment Identification

Owner Copy (to be kept with aircraft)

50044
CUSTOMER DELIVERY DATE: 12-27-84
PIPER DISTRIBUTOR: Piedmont

A/C MODEL	Piper PA-28-181	SER. NO.	28-8490088	REGISTRATION NO.	N4366D

A. OWNER'S NAME [redacted] b6 b7C
ADDRESS [redacted]
CITY [redacted]
STATE [redacted] ZIP [redacted]

B. DEALER PACIFIC PIPER
ADDRESS 1311 AIRPORT BLVD
CITY SAN JOSE STATE CA. ZIP 95110
C. SIGNATURE [redacted]

EQUIPMENT IDENTIFICATION - FACTORY INSTALLED

33 HR

	ENGINE(S)	MODEL	SERIAL NUMBER		PROPELLER	MODEL	SERIAL NUMBERS
1.	LEFT (OR SINGLE)	O-360-A4M	L-30773-36A	3.	HUB	76EM8S5-0-62	23805K
		Lycoming		4.	BLADE	Sensenich	
2.	RIGHT (MULTI)			5.	HUB		
				6.	BLADE		

AVIONICS

	MFR.	NOMENCLATURE AND MODEL	SER. NO.		MFR.	NOMENCLATURE AND MODEL	SER. NO.
7.	KING	KX 155-00	32060	34.			
8.	KING	KX 155-01	32829	35.			
9.	KING	KR 86	27779	36.			
10.	KING	KA 42 B	35357	37.			
11.	KING	KMA 24-03	16282	38.			
12.	KING	KT 76 A	40699	39.			
13.	KING	KI 208	18662	40.			
14.	KING	KI 209	14606	41.			
15.	NARCO	AR ~~500~~ 850	~~2493~~ 25719	42.			
16.	NARCO	ELT 10	XXXA25515	43.			
17.				44.			
18.				45.			
19.				46.			
20.				47.			
21.				48.			
22.				49.			
23.				50.			
24.				51.			
25.				52.			
26.				53.			
27.				54.			
28.				55.			
29.				56.			
30.				57.			
31.				58.			
32.				59.			
33.				60.			

AUTOMATED FLIGHT SYSTEM

	NOMENCLATURE	SER. NO.		NOMENCLATURE	SER. NO.		NOMENCLATURE	SER. NO.
61.	KAP 100		69.			77.		
62.	KG 258	9935	70.			78.		
63.	~~KXMK~~ KS 178	1751	71.			79.		
64.	KS 179	1519	72.			80.		
65.	KG 107	1493	73.			81.		
66.	KC 190	1223	74.			82.		
67.			75.			83.		
68.			76.			84.		

FORM 230-015 (11/78)

PIPER

11A

THE adlog T.M. AIRCRAFT MAINTENANCE RECORDKEEPING SYSTEM

AVIONICS MAINTENANCE RECORDS

(including transponder biennial checks)

Log No. _____

Aircraft Registration No. N4366D

Aircraft Manufacturer Piper

Model PA 28-181

Serial No. 28-8490088

EQUIPMENT LISTING

List all installed avionics, autopilot and flight director equipment.

	Mfg.	Model	Serial No.
1.	See enclosed Piper Equipment	List dated 12-27-84.	
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
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18.			
19.			
20.			

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Page No. 1

DATE	AIRFRAME TIME IN SERVICE	AVIONICS TIME IN SERVICE	DESCRIPTION OF WORK PERFORMED— SIGNATURE & CERTIFICATE NO. OF PERSON PERFORMING WORK
5-2-94			ELT Battery replaced; next due 5-96
6-29-94			Transponder & encoder test satisfactory.
6-29-94			Altimeter tested to 20,000 ft; P-S system test satisfactory
—			Above entries for reference [redacted] aircraft Log for appropriate certification.
May 21 1996			Replaced ELT Battery [redacted] FAR 91.207.
			[redacted] 1998
6/27/96			The tests required by FAR 91.411 and FAR 91.413 were performed in accordance with part 43 Appendix E+F and system meets same. Tested to 29,000 ft. Details on file at this station under work order 5024.
			Altimeter 6934/PD-1 SN: 9B963
			Encoder AR850 SN: 5941 9
			XPNDR KT76A SN: 28243
			CRS - GT6R573N
			Signed: [redacted]
			Colo Spgs Avionics Inc.
3/13/97	7571	7571	Inspected ELT in accordance with FAR 91.409 Page 6. Battery due July 98. [redacted]

ARTEX AIRCRAFT SUPPLIES, INC.
ARTEX 10714 S. Township Rd. Canby, OR 97013
(503) 266-3959 800-547-8901
NARCO ELT 10
LOG BOOK ENTRY ARTEX 96-10-007
E.L.T. BATTERY REPLACEMENT DATE May 21, 1996

[redacted]

2/20/01

b6
b7C

HERE'S AN "ORIGINAL" COPY OF THE FBI'S INVESTIGATIVE REPORT CONCERNING PAUL LEVEILLE.

PLEASE RETURN IT IF POSSIBLE.

THANKS

[redacted]

b6
b7C

Thanks for the use of these documents. I was able to get a picture of the cause(s) of SA Leveille's death sufficient to recommend his inclusion on the 'performance of a law enforcement function' plaque.

[redacted]

b6
b7C

DATE	AIRFRAME TIME IN SERVICE	AVIONICS TIME IN SERVICE	DESCRIPTION OF WORK PERFORMED— SIGNATURE & CERTIFICATE NO. OF PERSON PERFORMING WORK
7-97		TACH 1848	INSPECTED ELT IAW FAR 91.207 PAR (a)(b)
			BATTERY EXPIRATION DATE: JULY 98.
			[redacted] b6 b7C
			MAINTENANCE RELEASE STATEMENT The aircraft/component identified was repaired and inspected in accordance with current maintenance rules of the Federal Aviation Regulations and is approved for return to service. Pertinent details of the repair are on file at this repair station under: Navcomm #1 KX155 SN: 59183 Work Order No. 5563 Date 9/15/97 Signed: [redacted] b6 b7C For COLORADO SPRINGS AVIONICS, INC. CRS# GT6R573N 1945 Aviation Way Colorado Springs, CO 80916
July 17, 1998	7972.7	2142.2	Replaced ELT BATTERY NEXT DUE AUG "00" E/W FAR 91.207 para (d) OPERATIONAL GOOD. [redacted] b6 b7C
8/12/98			The tests required by FAR 91.411 AND FAR 91.413 were performed in accordance with Part 43 Appendix E + F and system meets same. Tested to 29,000 ft. Details are on file at this station under WO # 5786.
	Altimeter	5234PD-1	SN: 98943
	Encoder	AR850	SN: 57419
	XPNDR	KT76A	SN: 28243
	CRS - GT6R573N		LEVELLED 9/1/99
	Signed: [redacted] b6 b7C		
	For: Colo Spgs Avionics Inc.		

Page No. _____

DATE	AIRFRAME TIME IN SERVICE	AVIONICS TIME IN SERVICE	DESCRIPTION OF WORK PERFORMED— SIGNATURE & CERTIFICATE NO. OF PERSON PERFORMING WORK
1-12-99		2247.5	Inspected FLT TAW FAR 91.207 para B
			OPS CK GOOD [redacted]
2-11-99		2342.8	Unspected FLT TAW FAR 91.207 para B
			ops ck good [redacted]

THE adlog AIRCRAFT MAINTENANCE RECORDKEEPING SYSTEM

PROPELLER MAINTENANCE RECORDS

Log No. 2

Aircraft Registration No. N4366D

Propeller Manufacturer Sensenich

Hub Model _____

Blade Design No. _____

Hub Serial No. 27414K

Blade Serial No's.

1. _____
2. _____
3. _____
4. _____

Pitch Range:

High _____ Low _____

Feather _____ Reverse _____

Governor Manufacturer _____

Model No. _____

Serial No. _____

Date installed on aircraft 10/24/90

Time Between Overhauls (TBO) 1000 Hours

If used on multi-engine aircraft:

☐ Right ☐ Left

☐ Front ☐ Rear

(All applicable information must be filled in)

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Page No. _____

DATE	TOTAL TIME IN SERVICE	TOTAL TIME SINCE OVERHAUL	TACH OR RECORDING METER TIME	DESCRIPTION OF WORK PERFORMED— SIGNATURE & CERTIFICATE NO. OF PERSON PERFORMING WORK
	1702.7	1702.7	1037.1	**TOTALS** brought forward from previous page
				Date 10-28-94 Total Time 1702.7 I certify that this Propeller has been inspected in accordance with a 100-HOUR inspection and was determined to b[redacted] condition. Nam[redacted] Certificate [redacted] b6 b7C
				Date 10-28-94 Total Time 1702.7 I certify that this Propeller has been inspected in accordance with an ANNUAL inspection and was determined to be[redacted] condition. Name[redacted] Certificate [redacted] b6 b7C
06-16-95	1797.9	1797.9	1132.2	Date 06-16-95 Total Time 1797.9 I certify that this PROPELLOR has been inspected in accordance with a 100-H[redacted]etermined to be [redacted] Name[redacted] Certificate #[redacted] b6 b7C
				Date 6-16-95 Total Time 1797.9 I certify that this Propellor has been inspected in accordance with a ANNUAL inspection and was determined to be in airworthy conditio[redacted] Name[redacted] Certificate #[redacted] b6 b7C
				SUB-TOTALS this page
				TOTALS—Carry forward to next page

DATE	TOTAL TIME IN SERVICE	TOTAL TIME SINCE OVERHAUL	TACH OR RECORDING METER TIME	DESCRIPTION OF WORK PERFORMED— SIGNATURE & CERTIFICATE NO. OF PERSON PERFORMING WORK
				TOTALS brought forward from previous page
8/15/95	1895.9	1895.9	1230.2	Date 8/15/95 Total Time 1895.9 I certify that this PROPELLOR has been inspected in accordance with a 100-HOUR inspection and was determined to be i Name [redacted] b6 b7C Certificate # [redacted]
				Date 12/6/95 Total Time 1994.7 I certify that this PROPELLER has been inspected in accordance with a ANNUAL inspectio to be in airworthy condition Name [redacted] b6 b7C Certificate # [redacted]
12/6/95	1994.7	1994.7	1329.0	Date 12/6/95 Total Time 1994.7 I certify that this PROPELLER has been inspected in accordance with a 100-HOUR inspection and was determined to be in airworthy condition Name [redacted] b6 b7C Certificate # [redacted]
3-21-96	2093.0	2093.0	1427.3	Date 3-21-96 Total Time 2093.0 I certify that this Propeller has been inspected in accordance with a ANNUAL inspectio airworthy condition Name [redacted] b6 b7C Certificate # [redacted]
7/6/96	2200.3	2200.3	1534.6	Date 7/6/96 Total Time 2200.3 I certify that this PROPELLER has been inspected in accordance with a 100-HOUR inspection and was determined to be i Name [redacted] b6 b7C Certificate # [redacted]
				SUB-TOTALS this page
				TOTALS—Carry forward to next page

Page No. _____

DATE	TOTAL TIME IN SERVICE	TOTAL TIME SINCE OVERHAUL	TACH OR RECORDING METER TIME	DESCRIPTION OF WORK PERFORMED— SIGNATURE & CERTIFICATE NO. OF PERSON PERFORMING WORK
				TOTALS brought forward from previous page
10-23-96	7468.0	2553.0	1638.0	
				Date 10-23-96 Total Time 7468.0 I certify that this Prop has been inspected in accordance with a **100-HOUR** inspection and was determined to be in airworthy condition Name [redacted] b6 b7C Certificate # [redacted]
3-13-97	7571	2656	1741	
				Date 3-13-97 Total Time 7571 I certify that this PROPELLER has been inspected in accordance with a **ANNUAL** inspection and to be in airworthy condition Name [redacted] b6 b7C Certificate # [redacted]
				Date 3-13-97 Total Time 7571 I certify that this PROPELLER has been inspected in accordance with a **100-HOUR** inspection and was determined to be in airworthy condition Name [redacted] b6 b7C Certificate # [redacted]
7-5-97	7678	2763	1848	
				Date 7-5-97 Total Time 7678 I certify that this PROPELLER has been inspected in accordance with a **100-HOUR** inspection and was determined to be Name [redacted] b6 b7C Certificate # [redacted]
9-10-97	7772	2857	1942	
				Date 9-10-97 Total Time 7772 I certify that this PROPELLER has been inspected in accordance with a **100-HOUR** inspection and was determined to be Name [redacted] b6 b7C Certificate # [redacted]
3-17-98	7872.7	2975.7	2042.7	CERTIFY THAT THIS Propeller HAS BEEN INSPECTED IN ACCORDANCE WITH AN ANNUAL INSPECTION AND WAS DETERMINED TO BE IN AN AIRW[illegible] CONDITION. TACH TIME 2042.7 TOTAL TIME 7872.7 PROP TIME Smoh 2975.7 ENGINE SMOH 72.7 DATE March 17, 199[illegible] [redacted] b6 b7C
				SUB-TOTALS this page
				TOTALS—Carry forward to next page

DATE	TOTAL TIME IN SERVICE	TOTAL TIME SINCE OVERHAUL	TACH OR RECORDING METER TIME	DESCRIPTION OF WORK PERFORMED— SIGNATURE & CERTIFICATE NO. OF PERSON PERFORMING WORK
	7872.7	2975.7	2042.7	TOTALS brought forward from previous page
July 17 98	7972.2	3075.2	2142.2	I CERTIFY THAT THIS PROPELLER HAS BEEN INSPECTED IN ACCORDANCE W TH AN 100 HR INSPECTION AND WAS DETERMINED TO BE IN AN AIRWORTHY CONDITION. TACH TIME 2142.2 TOTAL TIME 7972.2 PROP TIME [illegible] [redacted] b6 b7C
				CERTIFY THAT THIS PROPELLER HAS BEEN INSPECTED IN ACCORDANCE W TH AN ANNUAL INSPECTION AND WAS DETERMINED TO BE IN AN AIRWORTHY CONDITION. TACH TIME 2142.2 TOTAL TIME 7972.2 PROP TIME 3075.2 ENGINE SMOH 1772.2 DATE July 17, 98 [redacted] b6 b7C
11-12-98	8077.5	3180.5	2247.5	100 HR. Complied with Profiled propeller [redacted]
2-11-99	8172.8	3275.8	2342.8	100HR Complied with Profiled propeller & painted [redacted] b6 b7C
July 9, 1999	8270.6	3373.6	2440	I CERTIFY THAT THIS Propeller HAS BEEN INSPECTED IN ACCORDANCE WITH AN ANNUAL INSPECTION AND WAS DETERMINED TO BE IN AN AIRWORTHY CONDITION. TACH TIME 2440.6 TOTAL TIME 8270.6 PROP TIME SMOH 3373.6 ENGINE SMOH 1770.6 DATE 7/9/99 [redacted]
				SUB-TOTALS this page
				TOTALS—Carry forward to next page

THE adlog T.M. AIRCRAFT MAINTENANCE RECORDKEEPING SYSTEM

AIRFRAME MAINTENANCE RECORDS

Log No. 2

Aircraft Registration No. N4366D

Aircraft Mfg. Piper Model PA28-181 Serial No. 28-8490088

Engine Mfg. Lycoming Model O-360-A4M Serial No. L-27490-36A

Engine Mfg. _____ Model _____ Serial No. _____

Propeller Mfg. Sensenich Model 76EM8S5-0-60 Serial No. 27414R

Hub Design No. _____ Hub Serial No. _____

Blade Design No. _____ Blade Serial No's. _____

_____

_____

Propeller Mfg. _____ Model _____ Serial No. _____

Hub Design No. _____ Hub Serial No. _____

Blade Design No. _____ Blade Serial No's. _____

_____

_____

(All applicable information must be filled in)

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DATE	TOTAL TIME IN SERVICE	TACH OR RECORDING METER TIME	DESCRIPTION OF WORK PERFORMED— SIGNATURE & CERTIFICATE NO. OF PERSON PERFORMING WORK
			TOTAL brought forward from previous page
10/28/94	6283.5	1037.1	Transferred information from aircraft log number 1. [redacted]
10/28/94	6283.5	1037.1	Replaced nose tire and wheel bearings, race's Replaced all brake pads. Complied with AD 76-7-12 by ops check of ignition switch AD 84-26-2 by replacement of air filter.

Date 10-28-94 Total Time 6283.5
I certify that this Airframe has been inspected in accordance with a **100-HOUR** inspection and was determined to be in airworthy condition.
Name [redacted] Certificate [redacted]

TACH 1037.1
Date 10-28-94 Total Time 6283.5
I certify that this Aircraft has been inspected in accordance with an **ANNUAL** inspection and was determined to be [illegible] condition.
Name [redacted] Certificate # [redacted]

18 January 1995 Tach 1070.3 N4366D

Replaced left and right aileron skins, stabilator upper skins, and tab. Filled dents on both wings, upper fuselage, and upper flap skins. Painted wings, flaps, ailerons, stabilator and tabs, upper and right side of fuselage, top cowl, and nose pant. Balanced ailerons and stabilator assembly. Installed flaps, ailerons, stabilator, top cowl, and nose pant. Performed rig and operational test of flaps, ailerons, stabilator, and trim.. C/W SB 977 by inspection and treating of rear spar fittings.

This aircraft was repaired and inspected in accordance with current regulations of the Federal Aviation Administration and is approved for return to service.

Pertinent details on file at Beegles Aircraft Service, Greeley, CO Work Order #7462 CRS BX4R092M.

Signed [redacted]

SUB-TOTAL this page

TOTAL—Carry forward to next page

b6
b7C

DATE	TOTAL TIME IN SERVICE	TACH OR RECORDING METER TIME	DESCRIPTION OF WORK PERFORMED— SIGNATURE & CERTIFICATE NO. OF PERSON PERFORMING WORK
			TOTAL brought forward from previous page
06-16-95	6378.7	1132.2	Date 06-16-95 Total Time 6378.7 I certify that this AIRFRAME has been inspected in accordance with a 100-HOUR inspection and was determined to be Name [redacted] b6 b7C Certificate # [redacted]
			Date 6-16-95 Total Time 6378.7 I certify that this Aircraft has been inspected in accordance with a ANNUAL inspection and was determined to be in airworthy condition. Name [redacted] b6 b7C Certificate # [redacted]
8/15/95	6476.7	1230.2	Date 8/15/95 Total Time 6476.7 I certify that this AIRFRAME has been inspected in accordance with a 100-HOUR inspection and was determined to be in airworthy condition Name [redacted] b6 b7C Certificate # [redacted]
			CHK AD 76-7-12 by ops check of mag switch.
12/6/95	6575.5	1329.0	Date 12/6/95 Total Time 6575.5 I certify that this AIRFRAME has been inspected in accordance with a 100-HOUR inspection and was determined to be Name [redacted] b6 b7C Certificate # [redacted]
			Date 12/6/95 Total Time 6575.5 I certify that this AIRFRAME has been inspected in accordance with a ANNUAL inspection and was determined to be in airworthy condition Name [redacted] b6 b7C Certificate # [redacted]
			SUB-TOTAL this page
			TOTAL—Carry forward to next page

Page No. _____

DATE	TOTAL TIME IN SERVICE	TACH OR RECORDING METER TIME	DESCRIPTION OF WORK PERFORMED— SIGNATURE & CERTIFICATE NO. OF PERSON PERFORMING WORK
			TOTAL brought forward from previous page
2/12/96	6630.7	1384.2	REMOVED AND REINSTALLED RIGHT BRAKE CALIPER REPLACED CYLINDER PISTON PACKING. OPERATIONAL CHECK OK. REPLACED PILOTS SHOULDER HARNESS INERTIA REEL OPERATIONAL CHECK OK. [redacted] b6 b7C
3-21-96	6673-8	1427.3	R&R LEFT MAIN TIRE, AEROTRAINER 6.00-6 TIRE, CLEANED AND REPACKED WHEEL BEARINGS. R&R. LEFT & RIGHT BRAKE PADS. REPLACED WITH 66-105 BRAKE PADS. CLEANED & LUBRICATED BOTH BRAKE CALIPERS. LUBED STARTER DRIVE WITH SILICONE. REPAIRED OIL FILL ACCESS DOOR LATCH. [redacted] b6 b7C
			Date 3-21-96 Total Time 6673.8 I certify that this Aircraft has been inspected in accordance with a ANNUAL inspection and was determined to be in airworthy condition. Name [redacted] Certificate [redacted]
7/6/96	6781.1	1534.6	Date 7/6/96 Total Time 6781.1 I certify that this AIRFRAME has been inspected in accordance with a 100-HOUR inspection and was determined to be in airworthy condition. Name [redacted] b6 b7C Certificate # [redacted]
7-31-96	7312.4	1541.9	N4366D PA-28-181 7-31-96 TACH 1541.9 REMOVED & REPLACE LEFT WHEEL CYL PACKING. CLEANED & INSPECTED ASSY RE-INSTALLED PER MAINT. MANUAL LEAK & OPSV GOOD. [redacted]
			SUB-TOTAL this page
			TOTAL—Carry forward to next page

DATE	TOTAL TIME IN SERVICE	TACH OR RECORDING METER TIME	DESCRIPTION OF WORK PERFORMED— SIGNATURE & CERTIFICATE NO. OF PERSON PERFORMING WORK
			TOTAL brought forward from previous page
9/16/96	7419.5	1559.0	Installed overhauled turn coordinator Part # 1394T100-72 S/N 8711-227. Operational check good. [redacted] b6 b7C
9-30-96		1606.5	Removed and Replaced RF main TVC [redacted]
10/3/96		16083	Installed overhauled turn coordinator Part # 1394T102 S/N 7810-222. Ops checks good [redacted] b6 b7C
10-23-96	7468.3	1637.8	REMOVED AND REPLACED LEFT AND RIGHT MAIN LANDING GEAR BRAKE PADS P/N 066-10500 CHECKED GOOD [redacted]
			Date 10-23-96 Total Time 7468.3 I certify that this AIRFRAME has been inspected in accordance with a ~~100-HOUR~~ inspection and was determined to be in airworthy condition Name [redacted] b6 b7C Certificate # [redacted]
11/6/96	7478.2	1648.0	R+R Vacuume pump part # 2116C, serial # 261727 Installed. Ops ✓ good [redacted]
			SUB-TOTAL this page
			TOTAL—Carry forward to next page

Page No. _____

DATE	TOTAL TIME IN SERVICE	TACH OR RECORDING METER TIME	DESCRIPTION OF WORK PERFORMED— SIGNATURE & CERTIFICATE NO. OF PERSON PERFORMING WORK
	7478		**TOTAL** brought forward from previous page
3-13-97	7571	1741	Date 3-13-97 Total Time 7571 I certify that this AIRFRAME has been inspected in accordance with a **100-HOUR** inspection and was determined to b Nam Certificate #
			REMOVED AND REPLACED LEFT MAIN TIRE 600-6 6 P.R. CHECKED GOOD. REPAIRED R/HROSTAT WIRES ON CABIN OVERHEAD, REPLACED BULB P/N 1414, OPERATIONAL CHECKED GOOD.
			Date 3-13-97 Total Time 7571 I certify that this Aircraft has been inspected in accordance with a ANNUAL inspection orthy condition. Name Certificate
4-23-97		1779	REMOVED AND REPLACED LEFT MAIN BRAKE PADS AND REPACKED BRAKE CYLINDER OPERATIONAL CHECKED GOOD. REMOVED AND REPLACED RIGHT MAIN BRAKE PADS AND REPACKED BRAKE CYLINDER LEAK CHECKED, OPERATIONAL CHECKED GOOD
7-5-97	7678	1848	Date 7-5-97 Total Time 7678 I certify that this AIRFRAME has been inspected in accordance with a 100-HOUR inspection and was determined to be Nam Certificate #
			SUB-TOTAL this page
			TOTAL—Carry forward to next page

b6
b7C
b6
b7C
b6
b7C

DATE	TOTAL TIME IN SERVICE	TACH OR RECORDING METER TIME	DESCRIPTION OF WORK PERFORMED— SIGNATURE & CERTIFICATE NO. OF PERSON PERFORMING WORK
9-10-97	7772		**TOTAL** brought forward from previous page
9-10-97	7772	1942	
			Date 9-10-97 Total Time 7772 I certify that this AIRFRAME has been inspected in accordance with a 100-HOUR inspection and was determined to be in airworthy condition. Name [redacted] b6 b7C Certificate # [redacted]
			• Tightened stabilator attach bolt, replaced one trim cable pulley, adjusted trim cable tension • Tightened flap extension handle • Replaced rod end on right flap extender • Replace right tire & adjusted wheel alignment • Replaced both wheel brake linings • Serviced nose strut • Light ck. good.
			[redacted] b6 b7C
9-25-97	7785	1955	REMOVED AND REPLACED LEFT AND RIGHT MAIN BRAKE DISC P/N 164-02000. OPERATIONAL CHECKED GOOD. [redacted]
11-21-97	7800		**DATE:11-21-97 TACH:1970.0 ENGINE S/N:L-27490-36A LYCOMING O-360-A4M PIPER PA-28-181 N#:4366D A/C S/N:28-8490088** Completed removal and installation of engine this date to facilitate engine major overhaul. Engine installed using new fluid hoses and shock mounts. Engine serviced with 40wt. Aeroshell non-det. Aircraft test flight operational and leak check satisfactory. For further details concerning the work performed, refer to W.O.#7649 on file at this overhaul facility. END. [redacted] b6 b7C **FIREWALL FORWARD, INC. 5212 CESSNA DR. LOVELAND, CO. 80538 970-669-6185**

DATE	TOTAL TIME IN SERVICE	TACH OR RECORDING METER TIME	DESCRIPTION OF WORK PERFORMED— SIGNATURE & CERTIFICATE NO. OF PERSON PERFORMING WORK
			TOTAL brought forward from previous page
1-7-98	7835	2005	Repaired RT wheel Fairing with Fiberglass and Reinstalled [redacted] b6 b7C
Mar. 17, 1998	7872.7	2042.7	Serviced battery, brakes & tires. Cleaned and repacked Wheel bearings. Resealed Lt. brake wheel cylinder. Replaced all brake linings. Replaced air filter & vacuum sponge-filter. All AD's up to and including 98-05 complied with & entered in compliance log. chg AD 96-10-03 by SB 965 CERTIFY THAT THIS Aircraft HAS BEEN INSPECTED IN ACCORDANCE WITH AN ANNUAL INSPECTION AND WAS DETERMINED TO BE IN AN AIRWORTHY CONDITION. TACH TIME 2042.7 TOTAL TIME 7872.7 PROP TIME SMOH 2975.7 ENGINE SMOH 72.7 DATE March 17, 1998 [redacted] b6 b7C
June 9, 1998	7,921.0	2091.0	I certify that this aircraft has been inspected for a 50 hour inspection. check & Serviced battery, brakes & tires check all Interior & exterior [redacted] b6 b7C
July 17, 98	7972.2	2142.2	Serviced battery, brakes & tires. Cleaned and repacked wheel bearings. Serviced Both Struts Replaced Rt Fuel Sump Valve. ALL AD's up to and including 98-05 complied with & entered in compliance log. I CERTIFY THAT THIS Aircraft HAS BEEN INSPECTED IN ACCORDANCE W TH AN 100HR INSPECTION AND WAS DETERMINED TO BE IN AN AIRWORTHY CONDITION. TACH TIME 2142.2 TOTAL TIME 7972.2 [redacted] b6 b7C
			SUB-TOTAL this page
			TOTAL—Carry forward to next page

DATE	TOTAL TIME IN SERVICE	TACH OR RECORDING METER TIME	DESCRIPTION OF WORK PERFORMED— SIGNATURE & CERTIFICATE NO. OF PERSON PERFORMING WORK
			TOTAL brought forward from previous page
7/17/98	7972.7	2142.2	CERTIFY THAT THIS Aircraft HAS BEEN INSPECTED IN ACCORDANCE WITH AN ANNUAL INSPECTION AND WAS DETERMINED TO BE IN AN AIRWORTHY CONDITION. TACH TIME 2142.2 TOTAL TIME 7972.2 PROP TIME 3075.2 ENGINE SMOH 172.2 DATE July 17, 98 [redacted] b6 b7C
8/17/98	8002.2	2171.0	Removed and Replaced Turn Coordinator NEW P/N [redacted] b6 b7C
9/24/98		2213.1	Removed and Replaced main tire [redacted]
11-12-98	8078.0	2247.5	100HR Completed Serviced battery, brakes & tires. Remove Both Main Wheel Pants for training. ALL ADs up to and including 98-11 complied with & entered in compliance log [redacted] b6 b7C
1-8-99	8120.6	2290.1	50HR Inspection completed Serviced Battery tires & brakes Annual [redacted]
1-28-99	8146.0	2315.5	Removed & Replaced nose wheel [redacted]
2-1-99	8155.8	2325.2	Removed & Replaced nose wheel tire P/N A413A/HDA-CL-7A/28 Aviation Supply #1590 [redacted] b6 b7C
2-11-99	8173.3	2342.8	100HR INSPECTION COMPLETED. Serviced Battery, tires & Brakes. ALL ADs up to and including 99-02 complied with & entered in compliance log [redacted]
4-19-99	8223.0	2392.5	50HRS Inspection completed Annual Inspection completed Serviced battery tires & brakes [redacted]
			SUB-TOTAL this page
			TOTAL—Carry forward to next page

Page No. _____

DATE	TOTAL TIME IN SERVICE	TACH OR RECORDING METER TIME	DESCRIPTION OF WORK PERFORMED— SIGNATURE & CERTIFICATE NO. OF PERSON PERFORMING WORK
	8223.0		**TOTAL** brought forward from previous page
July 9, 1999	8271.1	2440.6	Serviced battery, brakes & tires. Cleaned and repacked wheel bearings. Replaced all brake linings. Replaced one main wheel bearing. Serviced nose strut. C/W FAR 91.207 para. (d) All AD's to 99-18 Complied with and entered in compliance log. AD 99-05-09 N/A by location of airfilters. I CERTIFY THAT THIS Aircraft HAS BEEN INSPECTED IN ACCORDANCE WITH AN ANNUAL INSPECTION AND WAS DETERMINED TO BE IN AN AIRWORTHY CONDITION. TACH TIME 2440.6 TOTAL TIME 8271.1 PROP TIME 3373.6 ENGINE SMOH 470.6 DATE 7/9/99 [redacted] b6 b7C
8-20-99	8325.3	2494.8	Serviced battery, brakes & tires. I certify that this aircraft has been inspected IAW 50HR Inspection and it was determined to be airworthy condition [redacted] b6 b7C
8-31-99	8338.4	2507.9	Reinstalled Left and right main wheel parts [redacted]

MODEL PA-28-181 ARCHER II

Airplane Serial Number 28-8490088

Registration Number N4366D

Date 6/14/84

AIRPLANE BASIC EMPTY WEIGHT

Item	Weight (Lbs)	x C.G. Arm (Inches Aft of Datum)	= Moment (In-Lbs)
~~Actual~~ Standard Empty Weight* Computed	1422.0	84.9	120728
Optional Equipment	188.3	107.7	20285
Basic Empty Weight	1610.3	87.6	141013

*The standard empty weight includes full oil capacity and 2.0 gallons of unusable fuel.

AIRPLANE USEFUL LOAD

(Ramp Weight) - (Basic Empty Weight) = Useful Load

Normal Category (2558 lbs.) - (1610.3 lbs.) = 947.7 lbs.

Utility Category (2138 lbs.) - (1610.3 lbs.) = 527.7 lbs.

THIS BASIC EMPTY WEIGHT, C.G. AND USEFUL LOAD ARE FOR THE AIRPLANE AS LICENSED AT THE FACTORY. REFER TO APPROPRIATE AIRCRAFT RECORD WHEN ALTERATIONS HAVE BEEN MADE.

WEIGHT AND BALANCE DATA FORM
Figure 6-5

PA-28-181	Serial Number 28-8490088		Registration Number N4366D				Page Number 1	
Date	Item No.	Description of Article or Modification	Added (+) Removed (-)	Weight Change Wt. (Lb.)	Weight Change Arm (In.)	Weight Change Moment /100	Running Basic Empty Weight Wt. (Lb.)	Running Basic Empty Weight Moment /100
6/14/84		As Licensed					1610.3	141013
1/18/85	289	Installed KN-64 DME	+	3.3	58.3	192	1613.6	141205
						New CG	87.51	Normal
						New UL	944.4	Utility
							524.4	
11/5/90	131	Remove Wheel Fairings	-	3.8	36.3	138		
		Nose	-	17.0	113.6	1931	1592.8	139136
	133	Main				New CG	87.35	Normal
						New UL	965.2	Utility
							545.2	
12/17/90	397	Remove Fire Extinguisher	-	5.6	57.9	324	1587.2	138812
						New CG	87.46	Normal
						New UL	970.8	Utility
							550.8	

WEIGHT AND BALANCE RECORD
Figure 6-7

PA-28-181	Serial Number 28-8490088	Registration Number N4366D	Page Number 2

Date	Item No.	Description of Article or Modification	Weight Change			Running Basic Empty Weight	
			Added (+)	Removed (-)	Wt. (Lb.)	Arm (In.)	Moment /100	Wt. (Lb.)	Moment /100
12/10/91	131	Installed Wheel Fairings Nose	+		3.8	36.3	138		
	133	Main	+		17.0	113.6	1931		
						New CG		1608.0	140881
						New UL		87.61	
								950.0	Normal
								530.0	Utility

WEIGHT AND BALANCE RECORD (cont)
Figure 6-7 (cont)

MODEL PA-28-181 ARCHER II

Airplane Serial Number 28-8490088

Registration Number N4566D

Date 6/14/84

AIRPLANE BASIC EMPTY WEIGHT

Item	Weight (Lbs)	C.G. Arm (Inches Aft of Datum)	Moment (In-Lbs)
Standard Empty Weight* Computed	1422.0	84.9	120728
Optional Equipment	188.3	107.7	20285
Basic Empty Weight	1610.3	87.6	141013

*The standard empty weight includes full oil capacity and 2.0 gallons of unusable fuel.

AIRPLANE USEFUL LOAD

(Ramp Weight) - (Basic Empty Weight) = Useful Load

Normal Category (2558 lbs.) - (1610.3 lbs.) = 947.7 lbs.

Utility Category (2138 lbs.) - (1610.3 lbs.) = 527.7 lbs.

THIS BASIC EMPTY WEIGHT, C.G. AND USEFUL LOAD ARE FOR THE AIRPLANE AS LICENSED AT THE FACTORY. REFER TO APPROPRIATE AIRCRAFT RECORD WHEN ALTERATIONS HAVE BEEN MADE.

WEIGHT AND BALANCE DATA FORM
Figure 6-5

WEIGHT AND BALANCE RECORD
Figure 6-7

PA-28-181	Serial Number 28-8490088	Registration Number N4566D	Past Number	
Date	Item No.	Description of Article or Modification	Added (+) Removed (-)	Weight Change: Wt. (Lb.)	Arm (In.)	Moment /100	Running Basic Empty Wt. Wt. (Lb.)	Moment /100
6/14/84		As Licensed					1610.3	141013
11/5/90		remove wheel fairings main gear	-	3.8	58.3	222	1613.6	141205
				- 17	113.59	-1931	1596.6	139133
12/17/90		Fire Extinguisher Removed	-	5.6	36.32	-203	1590.9	138809

AV-TECH AVIONICS, INC.
200 RACQUETTE DR.
FT. COLLINS, CO. 80524
CRS GR6R571N

Date 2/1/91

AMENDMENT TO WEIGHT & BALANCE

Aircraft Make/Model PIPER ARCHER PA28-181 N# 4366D

	Weight(Lbs)	Arm (In)	Moment(In/Lbs)	Useful Load
Old Data (Empty)	1587.2	87.45	138809	970.8
Changes				
TEMPORARY REMOVAL				
KX155/KI208 NAV-COM SYST.	-4.5	58.5	-316	
Total Changes	-4.5		-316	+4.5

New Empty Wt. 1582.7 Total Moments 138493
New Empty CG 87.50
New Useful Load 975.3

b6
b7C

Signed [redacted]

For AV-TECH AVIONICS, INC.

N4366D

(k) Instruments (Optional Equipment) (cont)

Item No.	Item	Mark if Instl.	Weight (Pounds)	Arm (In.) Aft Datum	Moment (Lb-In.)
195	Encoding Altimeter, Piper PS50008-6 or -7 Cert. Basis - TSO C10b, C88	_____	*0.9	60.3	54
197	Altitude Digitizer, (United Instruments P/N 5125-P3) Cert. Basis - TSO C88	_____	1.0	51.5	52
199	Vertical Speed, Piper Dwg. 99010-2, -4 or -5 Cert. Basis - TSO C8b	_____	1.0	65.9	66
201	Alternate Static Source, Piper Dwg. 35493	_____	0.4	61.0	24
203	Turn and Slip Indicator, Piper PS50030-2 or -3 Cert. Basis - TSO C3b	_____	2.6	59.7	155
205	Exhaust Gas Temperature, Piper Dwg. 99026	_____	0.7	55.4	39
207	Engine Hour Meter, Piper Dwg. 79548-0	_____	0.3	61.2	18
209	Clock	_____	0.4	62.4	25
211	Control Wheel Digital Clock, Piper Dwg. 87347-3	_____	0.3	71.9	22
213	Air Temperature Gauge, Piper Dwg. 99479-0 or -2	_____	0.2	72.6	15

(l) Autopilots (Optional Equipment)

223	Autopilot - Century 21, Piper Dwg. 39726 Cert. Basis - STC SA3352SW	_____	12.0	69.0	828
225	King KAP 100 Autopilot, Piper Dwg. 39874-( ) Cert. Basis - STC SA1565CE-D	_____	15.2	97.4	1480
227	King KAP 100 Autopilot W. KCS 55A Compass System, Piper Dwg. 39874-( ) Cert. Basis - STC SA1565CE-D	_____	21.2	113	2396
229	King KAP 150 Autopilot, Piper Dwg. 39874-( ) Cert. Basis - STC SA1565CE-D	_____	21.2	115.2	2442
231	King KAP 150 Autopilot W. KCS 55A Compass System, Piper Dwg. 39874-( ) Cert. Basis - STC SA1565CE-D				

THE adlog T.M. AIRCRAFT MAINTENANCE RECORDKEEPING SYSTEM

ENGINE
MAINTENANCE RECORDS

Log No. 3

Aircraft Registration No. N4366D

Engine Manufacturer Lycoming

Model O-360-A4M

Serial No. L-27490-36A

Date installed on aircraft 5/29/90

Time Between Overhauls (TBO) 2000 Hours

If used on multi-engine aircraft:

☐ Right ☐ Left
☐ Front ☐ Rear

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Page No. _____

DATE	TOTAL TIME IN SERVICE	TOTAL TIME SINCE OVERHAUL	TACH OR RECORDING METER TIME	DESCRIPTION OF WORK PERFORMED— SIGNATURE & CERTIFICATE NO. OF PERSON PERFORMING WORK
[redacted]	6283.5	2001.1	1037.1	**TOTALS** brought forward from previous ~~page~~ Log
10/28/94	6283.5	2001.1	1037.1	Drained oil and changed filter. Refilled with 8qts 20W50 Phillips. Cleaned and gapped spark plugs. Compression as follows #1 79/80 #2 70/80 #3 79/80 #4 79/80. C/W AD 76-7-12 by operational check of switch Next Due 1137.1. C/W AD 84-26-2 by replacement of air filter element. Next Due 1537.1.

Date 10/28/94 Total Time 6283.5
I certify that this Engine has been inspected in accordance with a **100-HOUR** inspection and was determined to be in airworthy condition.
Name [redacted] Certificate # [redacted]

Date 10/28/94 Total Time 6283.5
I certify that this Engine has been inspected in accordance with an **ANNUAL** inspection and was determined to b[redacted] condition.
Nam[redacted] Certificate # [redacted]

Cylinder Compressions

1	2	3	4	5	6
78	65	78	79	/	/
80	80	80	80	80	80

Date 06-16-95 Total Time 6378.7
Drained oil, changed filter/cleaned screen, serviced with 8 quarts 15W-50 AEROSHELL
Run up leak checked good
Nam[redacted]
Certificate # [redacted]

SUB-TOTALS this page

TOTALS—Carry forward to next page

DATE	TOTAL TIME IN SERVICE	TOTAL TIME SINCE OVERHAUL	TACH OR RECORDING METER TIME	DESCRIPTION OF WORK PERFORMED— SIGNATURE & CERTIFICATE NO. OF PERSON PERFORMING WORK
				TOTALS brought forward from previous page
		2096.2		
6-16-95	6378.7	2095.6	1132.2	Date 06-16-95 Total Time 6378.7 I certify that this Engine has been inspected in accordance with a 100-HOUR inspection and was determined to be in airworthy condition. Name [redacted] b6 b7C Certificate # [redacted]
				Date 6-16-95 Total Time 6378.0 I certify that this Engine has been inspected in accordance with a ANNUAL inspection and was determined to be in airworthy condition. Name [redacted] b6 b7C Certificate [redacted]
7-19-95	6432.5	2150.7	1186.7	Date 7 Total Time 6432.5 Drained oil, changed filter/cleaned screen, serviced with 8 quarts 15W50 Runup leak checked good Name [redacted] b6 b7C Certificate # [redacted]
8/15/95	6476.6	2194.2	1230.2	Date 8/15/95 Total Time 6476.0 Drained oil, changed filter/cleaned screen, serviced with 8 quarts 15W50 Runup [redacted] Name [redacted] b6 b7C Certificate # [redacted]
				Date 8/15/95 Total Time 6476.0 I certify that this Engine has been inspected in accordance with a 100-HOUR inspection and was determined to be in airworthy condition. Name [redacted] b6 b7C Certificate # [redacted]
				SUB-TOTALS this page
				TOTALS—Carry forward to next page

Cylinder Compressions

1	2	3	4	5	6
79	70	79	78	X	X
80	80	80	80	80	80

Page No. _____

DATE	TOTAL TIME IN SERVICE	TOTAL TIME SINCE OVERHAUL	TACH OR RECORDING METER TIME	DESCRIPTION OF WORK PERFORMED— SIGNATURE & CERTIFICATE NO. OF PERSON PERFORMING WORK
				TOTALS brought forward from previous page
	6524.5	2742.1		
09-22-95	~~6523.9~~	2741.5 ~~6523.9~~	1276.1	Date 09-22-95 Total Time 1276.1
				Drained oil, changed filter/cleaned screen, serviced with 8 quarts 15w-50 ✓CH48111
				Run[redacted] b6 b7C
				Name[redacted]
				Certificate #[redacted]
09-22-95	6523.9	2741.5 ~~6523.9~~	1276.1	Removed & Replaced Alternator One Loaded P/N 4111810, Opr Check OK. Checked Battery Cleaned Tube. O.S.A.
				[redacted] b6 b7C
12/6/95	6574.8	~~6574.8~~	~~1329.0~~ 1329.0	Date 12/6/95 Total Time 6574.8
		2292.4		Drained oil, changed filter/cleaned screen, serviced with 8 quarts 15W-50 ✓CH48111
				Runu[redacted] b6 b7C
				Name[redacted]
12/6/95	6575.4	2293.0	1329.0	Certificate #[redacted]
				Date 12/6/95 Total Time 6574.8
				I certify that this ENGINE has been inspected in accordance with a 100-HOUR inspection and was determined to be i[redacted] b6 b7C
				Name[redacted]
				Certificate #[redacted]
				Cylinder Compressions
				1 2 3 4 5 6
				79 79 79 79
				80 80 80 80 80 80
				SUB-TOTALS this page
				TOTALS—Carry forward to next page

DATE	TOTAL TIME IN SERVICE	TOTAL TIME SINCE OVERHAUL	TACH OR RECORDING METER TIME	DESCRIPTION OF WORK PERFORMED— SIGNATURE & CERTIFICATE NO. OF PERSON PERFORMING WORK
				TOTALS brought forward from previous page
				Date 12/6/95 Total Time 6574.8
				I certify that this ENGINE has been inspected in accordance with a ANNUAL inspecti airworthy b6 b7C
				condition Name [redacted] Certificate # [redacted]
	6623.6	2341.2		
1/23/96	~~6623.0~~	~~2340.4~~ 6623.0	1377.2	REPLACED ALTERNATOR THRU BOLT & TIGHTENED BELT. CHECKED O.K. [redacted]
	6627.4	2345		
2/5/96	~~6626.8~~	~~2296.2~~	1381.0	Date 2/5/96 Total Time 6626.8
				Drained oil, changed filter/cleaned screen, serviced with 8 quarts 15W-50 + CH48111
				Run [redacted] b6
				Name [redacted] 50 HR b7C
				Certificate # [redacted]
	6673.7	2391.3	1421.3	
3/21/96	~~6673.1~~	~~2342.5~~	~~1422.3~~	Installed new spark plugs REM 38E's. Inspected magneto's cleaned points and retimed. Drained oil changed filter CH48111. Serviced with 6 1/8 quarts 15W50 Aeroshell. [redacted] b6 b7C

Cylinder Compressions

1	2	3	4	5	6
76	79	77	78	X	X
80	80	80	80	80	80

Date 3-21-96 Total Time 6673.1

I certify that this Engine has been inspected in accordance with a ANNUAL inspec be in airworthy b6 b7C

condit

Name [redacted]

Certificate # [redacted]

			SUB-TOTALS this page
			TOTALS—Carry forward to next page

Page No. _____

DATE	TOTAL TIME IN SERVICE	TOTAL TIME SINCE OVERHAUL	TACH OR RECORDING METER TIME	DESCRIPTION OF WORK PERFORMED— SIGNATURE & CERTIFICATE NO. OF PERSON PERFORMING WORK
	6673.1	2342.5	1427.3	**TOTALS** brought forward from previous page
5-17-96	~~6726.4~~	~~2395.8~~	1480.6	DRAINED OIL, CHANGED FILTER SERVICED
	6727	2444.6		WITH 8 QUARTS 15W50 AEROSHELL OIL
				CHECKED GOOD [redacted] b6 b7C
	6781	2498.6		
~~7~~/6/96	~~6780.4~~	~~2449.8~~	1534.6	Date 7/6/96 Total Time 6780.4
				I certify that this ENGINE has been inspected in accordance with a 100-HOUR inspection and was determined to be [redacted] b6 b7C
				Name [redacted]
				Certificate # [redacted]
				Date 7/6/96 Total Time 6780.4
				Drained oil, changed filter/cleaned screen, serviced with 8 quarts 15W50 AEROSHELL
				Runup [redacted] b6 b7C
				Name [redacted]
				Certificate # [redacted]
	6788.3	2506.9		
7-23-96	~~6781.7~~	~~2457.1~~	1541.9	REMOVED & REPLACED ENGINE
				AIR FILTER. [redacted]
	6827.2	2544.8		
9-3-96	~~6826.6~~	~~2496.0~~	1580.8	DRAINED OIL, CHANGED FILTER SERVICED
CYLINDER COMPRESSIONS				WITH 7 QUARTS 15W50 AEROSHELL ENGINE
#1	#2	#3	#4	OIL CHECKED GOOD.
79	79	76	79	[redacted] b6 b7C
	6884.2	2601.8		
10-23-96	~~7468~~	~~2553.6~~	1637.8	Date 10-23-96 Total Time 7468.0
				Drained oil, changed filter/cleaned screen, serviced with 7 quarts 15W50
				Runup, leak checked good
				Name [redacted]
				Certificate # [redacted]
				SUB-TOTALS this page
				TOTALS—Carry forward to next page

Cylinder Compressions

1	2	3	4	5	6
78	77	77	78	X	X
80	80	80	80	80	80

DATE	TOTAL TIME IN SERVICE	TOTAL TIME SINCE OVERHAUL	TACH OR RECORDING METER TIME	DESCRIPTION OF WORK PERFORMED— SIGNATURE & CERTIFICATE NO. OF PERSON PERFORMING WORK
				TOTALS brought forward from previous page
	6936.4	2654		
12-31-96	~~7520.0~~	~~2666.0~~	1670.0	DRAINED OIL, CHANGED FILTER, SERVICED WITH 8 QUARTS 15W50 AEROSHELL OIL CHECKED GOOD.
	6987.4	2705		
3-13-97	~~7571~~	~~2657~~	1741	SERVICED AND INSPECTED ENGINE IN ACCORDANCE WITH PIPER SERVICE MANUAL, DRAINED OIL CHANGED FILTER/CLEANED SCREEN, SERVICED WITH 8 QUARTS 15W50 ROLLUP. LEAK CHECKED GOOD.
7-30-97	7154.4	2872	1908	DRAINED OIL, CHANGED FILTER, SERVICED WITH 8 QUARTS 15W50 AEROSHELL OIL. CHECKED GOOD.
				SUB-TOTALS this page
				TOTALS—Carry forward to next page

Cylinder Compressions

1	2	3	4	5	6
~~75~~	~~75~~	~~75~~	~~75~~	—	—
80	80	80	80	80	80

Date 10-23-96 Total Time 7468.0

I certify that this Engine has been inspected in accordance with a ~~100-HOUR~~ inspection and was determined to be in airworthy condition.

Name [redacted] b6 b7C

Certificate # [redacted]

Cylinder Compressions

1	2	3	4	5	6
78	67	77	78	X	X
80	80	80	80	80	80

Date 3-13-97 Total Time ~~7571~~ 6987.4

I certify that this ENGINE has been inspection with a ~~ANNUAL~~ be in airworthy condition.

Name [redacted] b6 b7C

Certificate # [redacted]

6987.4

Date 3-13-97 Total Time ~~7571~~

I certify that this ~~ENGINE~~ has been inspected in accordance with a ~~100-HOUR~~ inspection and was determined to be

Name [redacted] b6 b7C

Certificate # [redacted]

Page No. _____

DATE	TOTAL TIME IN SERVICE	TOTAL TIME SINCE OVERHAUL	TACH OR RECORDING METER TIME	DESCRIPTION OF WORK PERFORMED— SIGNATURE & CERTIFICATE NO. OF PERSON PERFORMING WORK
				TOTALS brought forward from previous page
5-5-97	7037.4	2755	1791	Replaced points and condenser in Lt mag check timing on Rt mag. ops V good on ground [redacted]
6-10-97	7043.4	2761	1797	DRAINED OIL, CHANGED FILTER SERVICED WITH 8 QTS. 15W50 AEROSHELL OIL, CHECKED GOOD. [redacted]
7-5-97	71044	2822	1848	Date 7-5-97 Total Time 7104.4 I certify that this ENGINE has been inspected in accordance with a 100-HOUR inspection and was determined to be [redacted] Name [redacted] Certificate # [redacted]

Cylinder Compressions

1	2	3	4	5	6
76	75	77	79		
80	80	80	80	80	80

				Date 7-5-97 Total Time 7104.4 Drained oil, changed filter/cleaned screen, serviced with 8 quarts 15W50 AEROSHELL Run up, leak checked good Name [redacted] Certificate # [redacted]	
9-10-97	7198.4	2916	1942	Date 9-10-97 Total Time 7198.4 I certify that this ENGINE has been inspected in accordance with a 100-HOUR inspection and was determined to be [redacted] Name [redacted] Certificate # [redacted]	

Cylinder Compressions

1	2	3	4	5	6
76	70	77	78		
80	80	80	80	80	80

				Date 9-10-97 Total Time 7198.4 Drained oil, changed filter/cleaned screen, serviced with 8 quarts 15W50 AEROSHELL Run up, leak checked good Name [redacted] Certificate # [redacted]	
				SUB-TOTALS this page	
				TOTALS—Carry forward to next page	

b6 b7C

DATE	TOTAL TIME IN SERVICE	TOTAL TIME SINCE OVERHAUL	TACH OR RECORDING METER TIME	DESCRIPTION OF WORK PERFORMED— SIGNATURE & CERTIFICATE NO. OF PERSON PERFORMING WORK
[redacted]				TOTALS brought forward from previous page
11-21-97	7226.4			DATE:11-21-97 TACH: 1970.0 ENGINE S/N:L-27490-36A -0- LYCOMING O-360-A4M PIPER PA-28-181 N#:4366D A/C S/N:28-8490088 Completed removal and installation of engine this date to facilitate engine major overhaul. Engine installed using new fluid hoses and shock mounts. Engine serviced with 40wt. Aeroshell non-det. Aircraft test flight operational and leak check satisfactory. For further details concerning the work performed, refer to W.O.#7649 on file at this overhaul facility. END. [redacted] FIREWALL FORWARD, INC. 5212 CESSNA DR. LOVELAND, CO. 80538 970-669-6185
11-21-97	7226.4			DATE:11-21-97 TACH: 1970.0 ENGINE S/N:L-27490-36A ENGINE TOTAL TIME: 7226.4 SMOH:000.0 -0- ENGINE MAJOR OVERHAUL LYCOMING O-360-A4M Completed engine major overhaul this date in accordance with Lycoming overhaul manual 60294-7, parts manual PC-306-1 and all applicable service bulletins, letters and instructions. This engine has been overhauled to new factory fits & limits. Crankcase replaced with align bored/certified case, crankshaft polished standard mains and rods, camshaft reground/certified, connecting rods align bored and new Lycoming complete cylinder assemblies installed. Accessories overhauled or exchanged with new as follows: new Slick magnetos, carburetor, oil cooler, new Lycoming fuel pump, alternator, new Sky-Tec starter, new ignition harness, and new spark plugs. Engine serviced with Aeroshell 40W non-det. Engine ground run operational and leak check satisfactory. This engine is approved for return to service. All maintenance release tags and list of C/W ADs in back of logbook. For complete details concerning this overhaul, refer to W.O.#7649 on file at this overhaul facility. END. [redacted] FIREWALL FORWARD, INC. 5212 CESSNA DR. LOVELAND, CO 80538 970-669-6185
				SUB-TOTALS this page
				TOTALS—Carry forward to next page

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Page No. _____

DATE	TOTAL TIME IN SERVICE	TOTAL TIME SINCE OVERHAUL	TACH OR RECORDING METER TIME	DESCRIPTION OF WORK PERFORMED— SIGNATURE & CERTIFICATE NO. OF PERSON PERFORMING WORK
				TOTALS brought forward from previous page
11-21-97	7226.4			

DATE:11-21-97 TACH:1970.0 ENGINE S/N:L-27490-36A
LYCOMING O-360-A4M SMOH:000.0

-ϕ-

ACCESSORIES OVERHAULED OR EXCHANGED AT OVERHAUL

MFG. NAME		COMPONENT	MODEL/PN	SERIAL NO.
Stewart Warn	OO	Oil Cooler	8406-J	061
Slick	**	Magneto (LT)	4371	96110207
Slick	**	Magneto (RT)	4370	97050267
Sky-Tec	**	Starter	149-12LS	
Precision	XX	Carburetor	MA-4-5	CP-5-3545
Electro Sys	XX	Alternator	4111810	A126446

XX - Original overhauled
** - New replacement
OO - Overhaul exchange
- Original not O/H'd

FIREWALL FORWARD, INC.
5212 CESSNA DR.
LOVELAND, CO. 80538
970-669-6185

11-21-97	7226.4	-ϕ-	1970.0	Engine overhaul - See above entries
12/28/97	7253.6	27.2	1997.2	DRAINED OIL AND REPLACED OIL FILTER, OLD FILTER CUT OPEN AND INSPECTED, SERVICED ENGINE WITH 8qt AERO SHELL 15W50 NON DET OIL, WASHED [redacted]
Mar. 17, 1998	7299.1	72.7	2042.7	Completed Compression check. All cylinders 79/80, drained oil & replaced oil filter. serviced with 8qts. Aeroshell 15W50. Cleaned and gapped spark plugs. cleaned fuel screens. All AD's up to and including 98-05 complied with and entered in Compliance log.
				CERTIFY THAT THIS Engine HAS BEEN INSPECTED IN ACCORDANCE WITH AN ANNUAL INSPECTION AND WAS DETERMINED TO BE IN AIRWORTHY CONDITION.
				TACH TIME 2042.7 TOTAL TIME 7299.1
				PROP TIME Smit 2975.7 ENGINE SMOH 72.70
				DATE March 17, 1998 [redacted]
				SUB-TOTALS this page
7299.1	72.7	2042.7		**TOTALS**—Carry forward to next page

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b7C

DATE	TOTAL TIME IN SERVICE	TOTAL TIME SINCE OVERHAUL	TACH OR RECORDING METER TIME	DESCRIPTION OF WORK PERFORMED— SIGNATURE & CERTIFICATE NO. OF PERSON PERFORMING WORK
	7299.1	72.7	2046.7	**TOTALS** brought forward from previous page
June 9, 1998	7347.4	121.0	2091.0	Completed 50 hour inspection on engine drained & serviced 15/50 wt shell oil and changed oil [redacted] b6 b7C
July 17, 98	7398.6	172.2	2142.2	#1 79/80, #2 79/80, #3 79/80, #4 79/80 Completed Compression checks, Drained oil & replaced oil filter. Serviced with 8 qts Aeroshell 15W50. Cleaned and gapped spark plugs. Cleaned fuel screens. ALL AD's complied with and in compliance log.
				I CERTIFY THAT THIS Engine HAS BEEN INSPECTED IN ACCORDANCE WITH AN 100HR INSPECTION AND WAS DETERMINED TO BE IN AN AIRWORTHY CONDITION. TACH TIME 2142.2 TOTAL TIME 7398.6 PROP T [redacted] b6 b7C
				CERTIFY THAT THIS ENGINE HAS BEEN INSPECTED IN ACCORDANCE WITH AN ANNUAL INSPECTION AND WAS DETERMINED TO BE IN AN AIRWORTHY CONDITION. TACH TIME 2142.2 TOTAL TIME 7398.6 PROP TIME 3075.2 ENGINE SMOH 172.2 DATE July 17, 98 [redacted]
11-12-98	7503.9	277.5	2247.5	Completed a 100 HR INSPECTION. Completed Compression cks. Cylinder #1 79/80, #2 79/80, #3 79/80, #4 79/80 Drained oil & Replaced oil filter. Serviced with 8 qts. Aeroshell 15W50. Cleaned & gapped spark plugs. Cleaned fuel screens. Cleaned & [redacted] ALL AD's complied with & in compliance log [redacted] b6 b7C
				SUB-TOTALS this page
				TOTALS—Carry forward to nex

DATE	TOTAL TIME IN SERVICE	TOTAL TIME SINCE OVERHAUL	TACH OR RECORDING METER TIME	DESCRIPTION OF WORK PERFORMED— SIGNATURE & CERTIFICATE NO. OF PERSON PERFORMING WORK
				TOTALS brought forward from previous page
1-8-99	7546.5	320.1	2290.1	50HR Inspection completed. Drained oil and replaced oil filter. Replenish oil with Aeroshell 15W50 with 8qts [redacted] b6 b7C
2-11-99	7599.2	372.8	2342.8	100HR Inspection completed. Completed Compression CK on all Cylinders. Cylinder #1 79/80, #2 79/80, #3 79/80, #4 79/80 Drained oil and replaced oil filter. Cut open old filter. Filter ck good. Serviced engine with 8qts of Aeroshell 15W50. Cleaned and gapped plugs. Replaced 3 AREM38E spark plugs. Cleaned fuel screens Cleaned engine. ALL ADs complied with up to 99-02 and [redacted] b6 b7C Compliance log
4-19-99	7648.9	472.5	2392.5	50HRS Inspection completed Drained oil and replaced oil filter. Replenish oil with Aeroshell 15W50 8qts
				[redacted]
July 9, 1999	7697.0	470.6	2440.6	Completed compression ck: #1 79/80, #2 [illegible], #3 79/80, #4 79/80.
				Drained oil & replaced oil filter. serviced with 8qts. Aeroshell 15w50
				Cleaned & gapped spark plugs. Cleaned fuel screens. All ADs to 99-13
				ck'd and entered in Compliance log.
				CERTIFY THAT THIS Engine HAS BEEN INSPECTED IN ACCORDANCE WITH AN ANNUAL INSPECTION AND WAS DETERMINED TO BE IN AN AIRWORTHY CONDITION.
				TACH TIME 2440.6 TOTAL TIME 7697.0
				PROP TIME 3373.6 ENGINE SMOH 470.6
				DATE 7/ [redacted] b6 b7C
				SUB-TOTALS this page [redacted]
				TOTALS—Carry forward to next page

DATE	TOTAL TIME IN SERVICE	TOTAL TIME SINCE OVERHAUL	TACH OR RECORDING METER TIME	DESCRIPTION OF WORK PERFORMED— SIGNATURE & CERTIFICATE NO. OF PERSON PERFORMING WORK
				TOTALS brought forward from previous page
8-20-99	7756.2	524.8	2194.8	Drained engine oil and Replaced oil
				filter I certify that this engine
	Replenish engine with			Has been inspected IAW 50HR Inspection
	Exxtis of Aeroshell 15W50			and it was [redacted] be airworthy
				condition

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			SUB-TOTALS this page
			TOTALS—Carry forward to next page

7649

SERVICEABLE

MFGR. NAME LYCOMING

COMPONENT CAMSHAFT

MODEL 76097

SERIAL NO. S93187-1

I CERTIFY THAT THE REPAIR IDENTIFIED ON THIS TAG WAS PERFORMED AND INSPECTED IN CONFORMANCE WITH FEDERAL AVIATION REGULATIONS, AND IS APPROVED FOR RETURN TO SERVICE.

PERTINENT DETAILS OF THE REPAIR ARE ON FILE AT THIS REPAIR STATION UNDER

WORK ORDER NO. 93187

DATE 11-12-97

SIGNED _____

AIRCRAFT SPECIALTIES SERVICES

FAA CERTIFIED REPAIR
STATION NO. DD2R764K
918-836-6872

RECORD OF REPAIR

RECONDITIONED AND REPAIRED IN
ACCORDANCE WITH AIRCRAFT
SPECIALTIES F.A.A. APPROVED
DATA AND PROCEDURES.

AIRCRAFT SPECIALTIES SERVICES
2860 N. SHERIDAN
TULSA, OKLAHOMA 74115

Applicable Airworthiness Directives

THE adlog® AIRCRAFT MAINTENANCE RECORDKEEPING SYSTEM

ID No:14117

Page No:1

Model: PA-28-181, S/N: 28-8490088, Tail No: N4366D Date:10/20/98

AD NUMBER	TYPE*	SUBJECT	Supersedes AD Number	N/A**
		ENGINE(s): O-360-A4M		
		PROPELLER(s): 76EM8S5-0-62		
		MAGNETO(s): Slick		
69-09-03R3	NR	SENSENICH PROPELLER		
76-07-12R1	NR	BENDIX IGNITION SWITCH		
84-26-02	R	INDUCTION AIR FILTERS		
87-08-08R3	N	WING SPAR INSPECTION		
87-10-06R1	N	LYCOMING ENGINE		
89-04-02	N	FACET (MARVEL-SCHEBLER) CARBURETOR		
91-14-22	R	LYCOMING ENGINE		
92-12-05	N	LYCOMING ENGINE		
93-11-11	N	FUEL PUMP	93-05-21	
95-07-01	N	DEFECTIVE CONNECTING ROD BOLTS		
95-26-13	NR	RUPTURE OF OIL HOSE ASSEMBLIES	76-25-06	
96-09-10	NM	LYCOMING ENGINE	81-18-04	
96-10-03	N	SUDDEN RETRACTION OF FLAPS		
97-15-11	N	LYCOMING ENGINE	97-01-03	
98-14-03	N	ALLIEDSIGNAL KT-76A TRANSPONDER		
98-17-11	N	NELSON REWORKED CRANKSHAFTS		
98-21-21	NM	INFLATABLE DOOR SEALS		

*Type of AD (*adlog* subscribers—this designation appears in the upper right corner of each *adNote* page):
N—Non-Repetitive. R—Repetitive. NM—Non-Repetitive, but has more than one compliance requirement.
NR—Can be either Repetitive or Non-Repetitive, depending on the method of compliance.

**Not applicable.

FAX NO: (516) 765-9359
TEL: (800) 235-6444

11H

Aircraft, Engine, Propeller, or Appliance/Comp. Make _____ Model _____ Ser. No. _____ (1)

	AD NUMBER	SUBJECT	DATE AND HOURS AT COMPLIANCE	METHOD OF COMPLIANCE	ONE TIME	RECURRING	NEXT COMP. DUE DATE/HOURS	AUTHORIZED SIGNATURE AND NUMBER
		AIRFRAME						
	62-19-03	PROP ATTACH BOLTS		N/A By YEAR				
*	64-6-6	CONTROL wheels		N/A By YEAR				
	67-20-4	MAIN GEAR link		N/A By P/N				
	67-26-2	Fuel Selector VALVE		N/A By Model				
	77-1-1	Fuel QUANTITY GUAGES		N/A By S/N				
	77-23-3	ROD END BEARINGS		N/A By S/N				
*	79-13-3	Fuel leaks		N/A By S/N				
	79-22-2	Fuel. leakage		N/A By S/N				
	80-14-2	THROTTLE CONTROL		N/A By S/N				
	80-14-3	RADIO DISRUPTION		N/A By S/N				
	86-17-01	Smoke in CABIN		N/A By S/N				
		ENGINE						
	59-10-7			N/A By YEAR				
	64-16-5	Fuel Pump		N/A By P/N				
	66-20-4	O,I FILTER		N/A NOT INST.				
	73-23-1	PISTON PIN FAILURE		N/A By S/N				
	75-8-9	O,I Pump Failure		N/A By S/N				
	79-10-3 R2	ENGINE MOUNT		N/A By model				
	79-15-2	LOSS OF POWER		N/A By S/N				
	80-4-3 R2	BENT PUSH RODS		N/A By Model				

CONT.

Aircraft, Engine, Propeller, or Appliance/Comp. Make _____ Model _____ Ser. No. _____

AD NUMBER	SUBJECT	DATE AND HOURS AT COMPLIANCE	METHOD OF COMPLIANCE	ONE TIME	RECURRING	NEXT COMP. DUE DATE/HOURS	AUTHORIZED SIGNATURE AND NUMBER
80-14-7	BENT PUSH RODS		N/A BY MODEL				
81-18-4	OIL PUMP		N/A BY MODEL				
87-10-6	ROCKER ARMS		N/A BY S/N				
	MAGNETOS						
74-18-5	IMPULSE COUPLING		N/A BY MODEL				
80-6-5	MAGNETO FAILURE		N/A BY MODEL				
81-16-5	COIL CRACKS		N/A NOT INSTALLED				
	PROPELLER						
66-23-2	STICKERS		N/A NOT INSTALLED				
69-9-3	BLADE TIP FAILURE		P/C W/ K IN S/N				
	INDUCTION AIR FILTER						
84-26-02	AIR FILTER		P/C/W replaces filter		X	Every 500 hrs	
	Engine						
* 91-14-22	Crankshaft gear		Due at OH		X		
92-12-05	Piston Pin Failure		N/A by date of OH	X			
92-20-07	Disruption of Fuel Flow		N/A by date of installation	X			

[redacted] b6 b7C

PRECISION AIRCRAFT MAINTENANCE
7805 S. PEORIA ST. G 3
ENGLEWOOD, CO 80112

AIRWORTHINESS DIRECTIVE COMPLIANCE RECORD

Aircraft, Engine, Propeller, or Appliance/Comp. Make _____ Model _____ Ser# _____

AD Number / REVISION DATE:	Subject	Date and Hours at Compliance	Method of Compliance	One-Time	Recurring	Next Comp. Due Date/Hours	Authorized Sig. and #
87-10-06	RIC rockerarm Failure	09/01/89	N/A by Serial #				
90-04-06	Oil line Fracture	2/15/90	N/A				
93-05-21	Fuel Pump Failure	4-11-93 149.4 TACH 1744.7	N/A	X			

06 JUNE 07

TACH 1 308
2 414

AD COMPLIANCE

AC Make Mod. PA28-181 | Reg. No. 4366D | S/N 28-8490088

Eng. Make Mod. LYCOMING O360A4M | S/N Lt. L-30773-36A | S/N Rt.

Prop. Make Mod. SENSENICH 76EM8S5-0-60 | S/N Lt. [redacted] 27414K | S/N Rt.

A.D. NUMBER	SUBJECT	DATE AND TACH AT COMPLIANCE	METHOD OF COMPLIANCE	ONE-TIME	RECURRING	NEXT COMPLIANCE DUE DATE/TACH	AUTHORIZED SIGNATURE AND NUMBER
77-01-01	Fuel gage 37E21	FACTORY	S.D.533 PCW				
77-23-03	ROD END BRGS 38C20	"	PCW				
79-13-03	Fuel Leaks 39A09	"	S.B. 638 PCW				
79-22-02	Fuel Leaks 39C07	"	S.B. 646 PCW				
80-14-02	THROTTLE CABLE 39F15	"	PCW				
80-14-03	RADIO DISRUPT 39F20	"	PCW				
80-24-03	SMOKE IN CABIN 40D14	"	S.B. 698				
84-26-02	~~PAPER AIR FILTER~~	~~308.0~~	R&R FILTER/CARTON	~~X~~		~~1625~~	
84-26-02		610 8-5	R&R FILTER		X		
59-10-07	CYL BAFFLE CLAMP 2F02	FACTORY	S.B. 254A				
64-16-05	OIL SEAL FAIL 2G06		SB 298				N/A
16-20-04	OIL FILTER GASKET 2G07		S.B. 307				
73-23-01 R4	PISTON PINS 2G16	O.H.	S.B. 367F			OH	
75-08-09 R3	OIL PUMP FAIL 2G24						
79-10-03 R2	ENGINE MOUNT BRACKET 4B03						
79-15-02	INFLITE POWER LOSS 4D11		S.B. 434				
~~80-04-03 R1~~	~~BOLTS~~ 4C07			~~X~~			N/A
80-14-07	VALVE FAILURE 4C23						
81-18-04 R2	OIL PUMP FAIL 4E17	—	S.B. 454 NOT Applicable S.N.				
90-04-06	N/A [illegible]						
69-09-03 R2	BLADE TIP FAILURE 2C23		"K" S.N. 61406				N/A
66-23-02 R	HUB BLADE FAIL 2C22		"K"				N/A
76-07-12	TANK SUMP ✓		Ref SHUT DOWN				
76-16-02	VAC PUMP 1B02		S.L. 16 N.A			—	
79-13-08	" " 1B02		Replaced S.L. 22A			—	
79-26-05	OIL/FUEL HOSE 1B14		P.N. 762506	X		—	
84-26-02	PAPER FILTERS 2G09	See ABOVE			~~X~~		
74-18-05	MAG. EMPULSE 2M04	Prior 1973	N.A MFG DATE			—	
80-06-05	MAG FAIL 2M04	—	N.A. NOT INSTALLED			—	
81-16-05	CRACKED SEAL 2M06	—	N.A. S.N.			—	
79-25-03	HOSE ASSY 2B02		N.A Hose			—	
84-26-02	PAPER AIR FILTER	1321.6	R&R FILTER		X	~~1625~~ ✓	
84-26-02	PAPER AIR FILTER	~~1625~~	R&R FILTER			2527 ~~2707~~	

2127

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On September 2, 1999, Special Agent (SA) met FEDERAL AVIATION ADMINISTRATION (FAA) Inspector at the COLORADO SKYWAYS office, 1777 Aviation Way, Colorado Springs, Colorado. advised he has been tasked with getting all books and records for an Archer PA 28-181, Tail number N4366 D, which crashed with two fatalities in the mountains west of Colorado Springs on September 1, 1999. will be checking for compliance with all applicable ADs (Airworthiness Directive) and other maintenance issues. If discrepancies are noted, will advise the National Transportation Safety Board (NTSB) and FBI of his findings.

indicated he can be reached at the Flight Standards District Office (FSDO), 26805 E. 68th Avenue, Suite 290, Denver, Colorado, telephone number (303) 342-1141, if there are any questions concerning the status of his investigation. b6 b7C

DEN99FA157

Northwest Mountain Regional Operations Center
Preliminary Aircraft Accident/Incident Report

A 1. Information From: **DEN AFSS/KLEBER** 2. Phone No:

B 1. Registration Number: **N4366D** 2. Make and Model: **PA-28-181**

3. Operator of Aircraft: **DEBALCO ENTERPRISES**

4. Type of Activity : **UNKNOWN**

5. Description of Circumstances Surrounding Occurrence:

CRASHED UNDER UNKNOWN CIRCUMSTANCES ON A 11,500' RIDGE 10 NM SOUTH OF SALIDA, CO AT APPROXIMATELY 1500Z (TIME NOT CONFIRMED) 2 POB PRESUMED FATAL. POST ACCIDENT FIRE. DEPARTED COLORADO SPRINGS, CO - NO OTHER ATC SERVICES.
1/3/5/6/200 GROUP PAGE/0848PDT
DEN FSDO/ROCKHOLD/0835PDT DEN NTSB/WIEMEYER/0836PDT ANM505/PUTZ/0852PDT ADA30/LEWIS/0850PDT ANM300/BIEHL/0851PDT ANM400/SPOHNHEIMER/MSG AT 0845PDT CO AERO/MCCABE/0910PDT DEN NWS/FREDIN/0859PDT RCC/CAPT CAAN/0852PDT PIPER/NAPOLITAN/0855PDT

6 Weather Information: **SEE ATTACHED COS AND GUC WEATHER**

7. Aircraft Damage: **Fire**

C 1 Name and Address of Pilot / Injury: **UNK/FATAL**

2. Names of Crew / Injuries: **UNK/UNK**

3. No of Passengers / Injuries: **UNK/UNK**

D 1. Location of Occurrence: **10 NM S OF SALIDA, CO** 81201

E 1. Date and Time of Occurrence: UTC **09 01 99 TIME UNK** LCL **09 01 99 TIME UNK**

F 1. Information on Coverage of Occurrence:

G 1A. Last Departure Point: **COLRADO SPRINGS, CO** 1B. Date and Time: **UNK**

1C. Intended Destination: **UNK**

2. Last Radio Contact Position: **UNK**

3. Last ATC Control Clearance: **UNK**

4. Flight Plan: **Unknown** 5. Pilot Briefing: **Unknown**

6. Other

Person Receiving Notification: **ANM6/MAYER/FRYE R** DTG(LCL): **09 01 99 0830 PDT**

NOTIFICATION LIST

ANM-200	FSDO/DEN	NWS / DEN
ANM-300	NTSB/DEN	
ANM-400	ADA-30	PIPER
ANM-500	ACE-6	CO AERO
ANM-1/3	ANE-6	

THIS IS PRELIMINARY DATA AND SUBJECT TO CHANGE

[Directory]

N-number Database Search Result

N-number	:	N4366D
Aircraft Serial Number	:	28-8490088
Aircraft Manufacturer	:	PIPER
Model	:	PA-28-181
Engine Manufacturer	:	LYCOMING
Model	:	O&VO-360 SER
Aircraft Year	:	1984
Owner Name	:	DEBALCO ENTERPRISES INC DBA
Owner Address	:	2533 SHALIMAR DR
		COLORADO SPRINGS, CO, 80915
Registration Date	:	21-Jun-1990
Airworthiness Certificate Type	:	Standard
Approved Operations	:	Normal

Aviation's Directory (click for expanded list)

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Credits [Logbook]

WEATHER BRIEFINGS

METAR KCOS 011554Z 15008KT 10SM FEW050 SCT120 21/12 A3013 RMK AO2
SLP118 T02060122=

!COS 08/027 COS 17R/35L CLSD WEF 9909011400-9909011800=

!COS 08/028 COS 12/30 NW 1000 CLSD WEF 9909011400-9909011800=

WEATHER BRIEFINGS

METAR KGUC 011555Z AUTO 27004KT 10SM BKN110 13/08 A3026 RMK AO1=

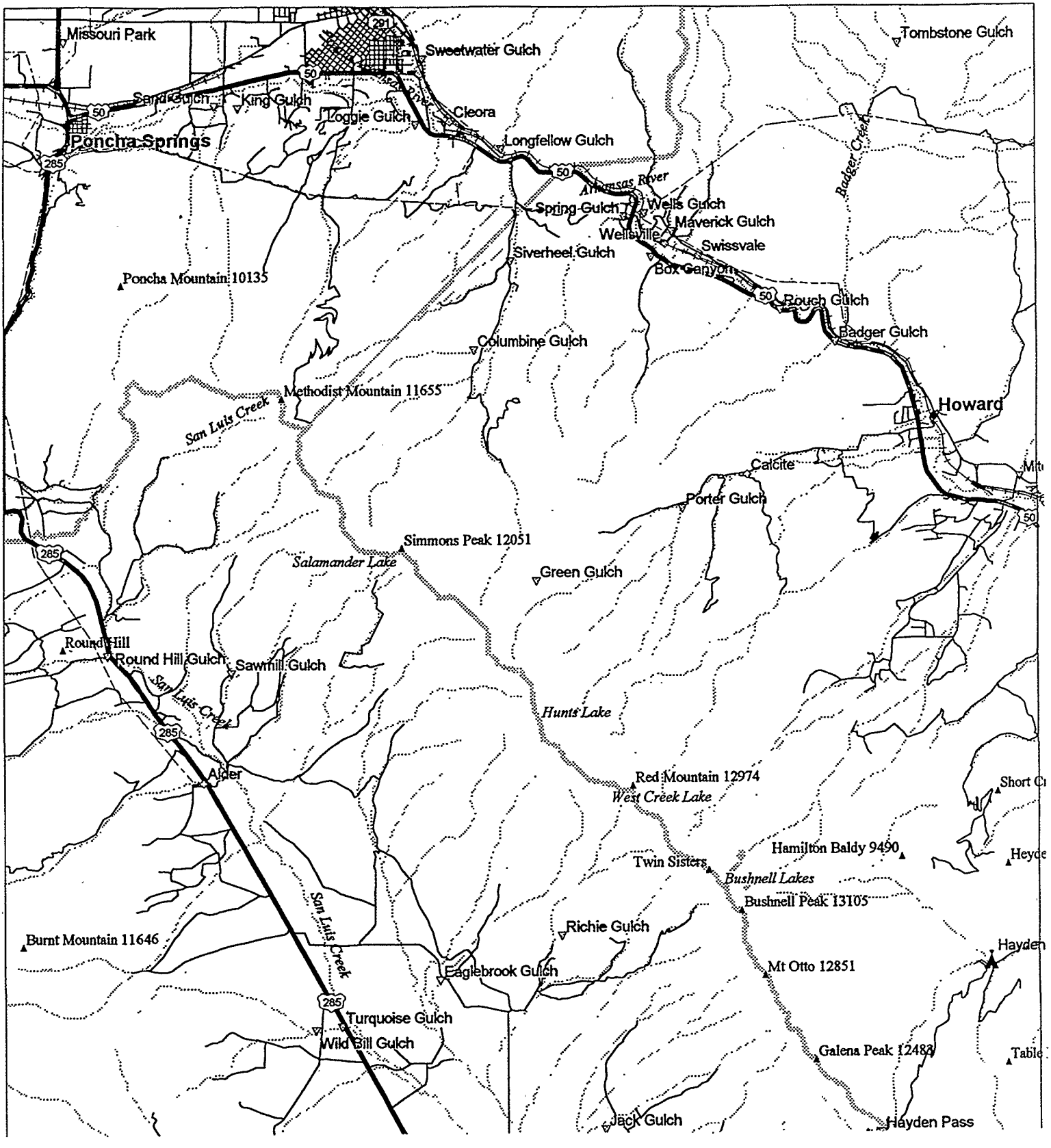
METAR KGUC 011615Z AUTO 00000KT 10SM FEW120 14/09 A3025 RMK AO1=

METAR KGUC 011615Z AUTO 00000KT 10SM FEW120 14/09 A3025 RMK AO1=

GUC : current report not available

GUC : current report not available

END OF DATA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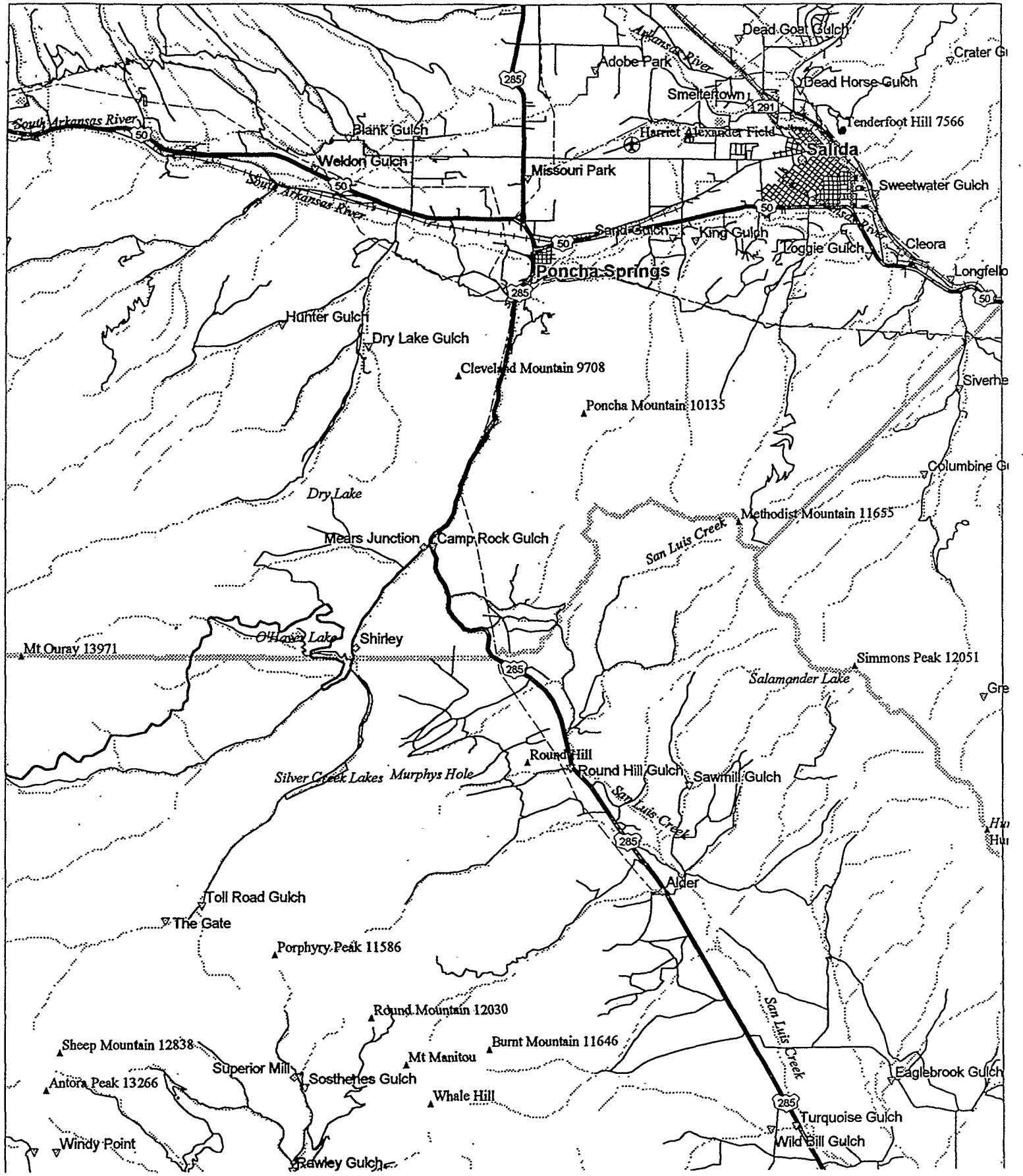
291
Sweetwater Gulch
Tombstone Gulch
50
Sand Gulch
King Gulch
Doggie Gulch
Cleora
Poncha Springs
285
Longfellow Gulch
50
Arkansas River
Badger Creek
Spring Gulch
Wells Gulch
Maverick Gulch
Wellsville
Swissvale
Siverheel Gulch
Box Canyon
Poncha Mountain 10135
50
Rough Gulch
Badger Gulch
Columbine Gulch
Methodist Mountain 11655
San Luis Creek
Howard
Calcite
Porter Gulch
50
285
Simmons Peak 12051
Salamander Lake
Green Gulch
Round Hill
Round Hill Gulch
Sawmill Gulch
San Luis Creek
Hunts Lake
285
Alder
Red Mountain 12974
West Creek Lake
Short Cr
Hamilton Baldy 9490
Heyde
Twin Sisters
Bushnell Lakes
Bushnell Peak 13105
Richie Gulch
Burnt Mountain 11646
San Luis Creek
Hayden
Eaglebrook Gulch
Mt Otto 12851
285
Turquoise Gulch
Wild Bill Gulch
Galena Peak 12483
Table
Jack Gulch
Hayden Pass


Dead Goat Gulch
Crater Gu
Arkansas River
Adobe Park
285
Dead Horse Gulch
Smeltertown
291
Tenderfoot Hill 7566
South Arkansas River
50
Blank Gulch
Harriet Alexander Field
Salida
Weldon Gulch
Missouri Park
South Arkansas River
Sweetwater Gulch
50
Sand Gulch
King Gulch
Loggie Gulch
Cleora
Poncha Springs
Longfello
285
50
Hunter Gulch
Dry Lake Gulch
Cleveland Mountain 9708
Poncha Mountain 10135
Columbine Gu
Dry Lake
Methodist Mountain 11655
Mears Junction
Camp Rock Gulch
San Luis Creek
O'Haver Lake
Shirley
Mt Ouray 13971
285
Simmons Peak 12051
Salamander Lake
Round Hill
Round Hill Gulch
Sawmill Gulch
Silver Creek Lakes
Murphys Hole
San Luis Creek
285
Alder
Toll Road Gulch
The Gate
Porphyry Peak 11586
Round Mountain 12030
San Luis Creek
Sheep Mountain 12838
Burnt Mountain 11646
Mt Manitou
Superior Mill
Sosthenes Gulch
Eaglebrook Gulch
Antora Peak 13266
Whale Hill
285
Turquoise Gulch
Wild Bill Gulch
Windy Point
Rawley Gulch

FEDERAL BUREAU OF INVESTIGATION

Date of transcription 10/21/99

On captioned date, [redacted] who is a Federal Aviation Administration (FAA) Aviation Safety Inspector assigned to the Denver Office, advised that a review of the engine logbooks by his office of a Lycoming O-360-A4M, Serial No# L-27490-36A revealed that a Yellow Serviceable part tag for the engine camshaft Serial # S93187-1, which had been installed by Aircraft Specialties Services, FAA certified repair station No. DD2R764K, during an engine rebuild on November 12,1997 had not been signed off. b6 b7C

[redacted] advised that his office would attempt to determine if the Work Order Number for the tag had been signed off. If this is the case, then the absence of a signature on the tag would be a technical violation. If the work Order does not have a signoff, then [redacted] beleives that the FAA will issue a violation against Aircraft Specialties Services. b6 b7C

A photocopy of the repair tag was made and is incorporated herein.

Investigation on 10/20/99 at Greeley, Colorado

File # 66H-IR-A5346 Date dictated 10/21/99

by SA [redacted] b6 b7C

This document contains neither recommendations nor conclusions of the FBI. It is the property of the FBI and is loaned to your agency; it and its contents are not to be distributed outside your agency.

16

DATE:11-21-97 TACH:_____ ENGINE S/N:L-27490-36A
ENGINE TOTAL TIME:_____ SMOH:000.0
ENGINE MAJOR OVERHAUL LYCOMING O-360-A4M

Completed engine major overhaul this date in accordance with Lycoming overhaul manual 60294-7, parts manual PC-306-1 and all applicable service bulletins, letters and instructions. This engine has been overhauled to new factory fits & limits. Crankcase replaced with align bored/certified case, crankshaft polished standard mains and rods, camshaft reground/certified, connecting rods align bored and new Lycoming complete cylinder assemblies installed. Accessories overhauled or exchanged with new as follows: new Slick magnetos, carburetor, oil cooler, new Lycoming fuel pump, alternator, new Sky-Tec starter, and new spark plugs. Engine serviced with Aeroshell 40W non-det. Engine ground run operational and leak check satisfactory. This engine is approved for return to service. All maintenance release tags and list of C/W ADs in back of logbook. For complete details concerning this overhaul, refer to W.O.#7649 on file at this overhaul facility. END.

[redacted] b6 b7C

FIREWALL FORWARD, INC.
5212 CESSNA DR.
LOVELAND, CO 80538
970-669-6185

WORK ORDER

BEEGLES AIRCRAFT SERVICE, INC.
711 CROSIER AVENUE
GREELEY, CO 80631
REPAIR STATION BX4R092M

The aircraft, airframe, aircraft engine, propeller or appliance identified below was repaired and inspected in accordance with current regulations of the Federal Aviation Administration and is approved for return to service.

Pertinent details of the repair are on file at this Repair Station under Work Order

NO. 7462 DATE 1-18-95 SIGNED [redacted] OR REP. STATION

b6
b7C

CUSTOMER Aero Tech Flight Svs REGISTRATION NO. N4366D

MAKE Piper MODEL PA28-181 S/N 28-8490088 TACH READ 1070.3

ITEM NO.

1. Reskined left and right ailerons.

2. Repaired the stabilator - Replaced:
   a. Upper skins.
   b. Left and right trim tabs and installed.

3. Filled dents on fuselage and wings upper surface.
   a. Filled dents on both flaps upper surface.

4. Painted the following to match:
   a. Complete wings, flaps, and ailerons.
   b. Fuselage top and right side.
   c. Top cowl, nose pant, stabilator and tabs.
   d. Balanced ailerons, and stabilator assy.

5. Installed the ailerons, flaps, and stabilator.
   a. Performed operational and rig test of flaps, ailerons, stabilator, and trim.
   b. Installed nose cowl and nose pant.

6. Complied with Service Bulletin 977 by inspection of and treating rear spar fittings.

All work done IAW Piper Manuals #761-679, 7-30-94 and 761-678, 6-13-84.

TEXTRON Lycoming
Air Safety Investigation

[redacted]
Air Safety Investigator
South Western Region

Subsidiary of Textron Inc.

7027 Lasaine Avenue
Van Nuys, CA 91406

Tel 818/881-5930
Fax 818/881-7760

b6
b7C

November 04, 1999

[redacted]
Federal Bureau of Investigation
201 E. Indianola Ave.
Phoenix, AZ 85012

b6
b7C

Registration No: N4366D
Date of Accident: September 01, 1999
Location: Villa Grove, Colorado
NTSB, ref: **DEN99FA157**

[redacted]

b6
b7C

Enclosed, please find my field notes and photographs for the aircraft accident listed above. If there is any other information I can provide, please feel free to call me anytime.

I look forward to working with you again soon.

Sincerely,

[redacted]

b6
b7C

Air Safety Investigator,
TEXTRON Lycoming

CC: Mishap Investigation Report

Engine Data

	Model	Serial Number	Total Time
Engine:	O-360-A4M	L-27490-36A	540 Hours Since Major O/H

	Manufacturer	Part Number	Serial Number
Propeller:	Sensenich	76EM8S5-0-60	27414K

Engine S/N on Case: None Match Number: 2575

Last Overhaul by: Firewall Forward, Inc. Work order # 7649 Overhaul Location: 5212 Cessna Dr Loveland, CO Date: 11/21/97

Propeller Blade Serial Numbers: Blade 1 n/a Blade 2 n/a

Blade 3 n/a Blade 4 n/a

On-Scene Exam?: ☒ Yes ☐ No Propeller Attached?: ☒ Yes ☐ No

Was Engine Disturbed Prior to Your Arrival? ☐ Yes ☒ No Does Engine Appear to be Runnable? ☐ Yes ☒ No

Does Crankshaft Rotate? ☒ Yes ☐ No Evidence of Fire?: ☐ Yes ☒ No

Propeller Governor:

Manufacturer: _____ Part No.: n/a Serial No.: n/a

Governor Oil Line:

Properly Secured?	☐ Yes	☐ No	☐ Unknown	☒ N/A
Correct Line Nuts?	☐ Yes	☐ No	☐ Unknown	☒ N/A
Correct Fittings?	☐ Yes	☐ No	☐ Unknown	☒ N/A

On-Scene Comments:
Investigators from the National Transportation Safety Board (NTSB), the Federal Bureau of Investigation (FBI), The New Piper Aircraft and Textron Lycoming responded to and documented the mishap site. Reference the report narrative for additional information.

Magnetos:

☒ **Left or** ☐ **Dual Magneto**

Manufacturer: Slick Model: ---------- P/N 4371 S/N 96110207

Impulse Coupling?: ☒ Yes ☐ No Functioning?: ☒ Yes ☐ No ☐ Unknown

Damage: None

Right Magneto

Manufacturer: Slick Model: ---------- P/N 4370 S/N 97050267

Impulse Coupling?: ☐ Yes ☒ No Functioning?: ☐ Yes ☐ No ☐ Unknown

Damage: None

Magneto Comments:
See "Engine Observations" narrative on page 11 for additional magneto information.

Engine Data
(Continued)

Fuel System ☐ Fuel Injected ☒ Carbureted

Manufacturer: Marvel Shiebler Model: MA4-5 Setting: 10-5193

Serial. No.: CP 5 3545 Floats: ☒ Metal ☐ Composite

Fuel Screens Carburetor/Injector Inlet: ☒ Clean ☐ Contaminated

Aircraft Main Fuel Strainer ☐ Clean ☐ Contaminated

Flow Divider
Manufacturer: n/a Part No.: n/a Serial No.: n/a

Evidence of Fuel Found? ☐ Yes ☐ No ☒ Unknown

Injector Nozzles: Type: ☐ One Piece ☐ Two Piece ☐ Unknown

Condition: ☐ Open ☐ Plugged ☐ Unknown

Fuel Pump: ☒ Diaphragm ☐ Geared ☐ Unknown

Manufacturer: AC Part No.: 15479 Serial No.: 9707

Fuel System Comments:
See "Engine Observations" narrative on page 12 for additional fuel system information.

Spark Plugs
Manufacturer: Champion Type: REM 38E SI 1042 Approved? ☒ Yes ☐ No

1 Top	Undamaged electrode, normal color	5 Top	
1 Bottom	Undamaged electrode, normal color	5 Bottom	
2 Top	Undamaged electrode, normal color	6 Top	
2 Bottom	Destroyed	6 Bottom	
3 Top	Undamaged electrode, normal color	7 Top	
3 Bottom	Undamaged electrode, normal color	7 Bottom	
4 Top	Undamaged electrode, normal color	8 Top	
4 Bottom	Undamaged electrode, oil soaked	8 Bottom	

Spark Plug Comments:
The spark plugs were secure at each position with their respective spark plug lead attached. The spark plugs were removed, examined and photographed. The spark plug electrodes were undamaged, and according to the Champion Spark Plugs Check-A-Plug chart AV-27, the spark plug electrodes displayed coloration consistent with normal operation. The oil soaking of the B4 spark plug was attributed to the engine positioning at the mishap site and post recovery. Reference photographs 21-23 & 65-66 for views of the spark plugs, as removed.

Engine Data
(Continued)

Ignition Harness
Tested: ☐ Yes ☒ No Condition: Damaged at variuos locations.

Comments:
The ignition harness had sustained varying degrees of damage by impact energy and was not tested. The ignition harness was attached at the respective magneto.

Starter:
Manufacturer: Sky-Tek Part No.: 149-12LS Serial No.: F2L-449758

Comments:
The starter (photo 49) was detached from the engine and damaged. The subject starter was not examined.

Alternator:
Manufacturer: Unknown Part No.: Unknown Serial No.: Unknown

Comments:
The alternator was securely attached at the mounting pad, and had sustained impact damage. Reference engine photographs for views of the subject alternator.

Generator:
Manufacturer: n/a Part No.: n/a Serial No.: n/a

Comments:

Vacuum Pump:
Manufacturer: Airborne Part No.: 211CC Serial No.: 26H 217

Comments:
The rear mounted vacuum pump was secure at the mounting pad. The pump was removed, examined and photographed. The drive was intact. The rotor/vane assembly was intact and undamaged. Reference photographs 46-47 for views of the subject vacuum pump.

Lubrication System:

Oil Suction Screen:	☐ Clean	☐ Contaminated	☒ Unknown
Oil Pressure Screen:	☐ Clean	☐ Contaminated	☐ Unknown
Oil Filter:	☒ Clean	☐ Contaminated	☐ Unknown
Oil Cooler Integrity:	☐ Secure	☐ Leaking	☒ Unknown

Oil System Comments:
The full flow oil filter was cut open to expose the filter media. There was no evidence of pre-mishap metal contamination observed at the filter or internal cavities of the engine. Reference photograph 48

Engine Observations

Powerplant Information

The subject wreckage and engine were initially observed on September 02, 1999, at the accident site, under the auspices of the National Transportation Safety Board, Investigator in charge (NTSB-IIC). The engine with attached wreckage came to rest in a precarious position that precluded any movement of the engine or propeller during the on-site examination. Reference photographs 9-17 for views of the engine on-site.

The powerplant is a four cylinder, air cooled, direct drive, horizontally opposed, normally aspirated (carburetor), internal combustion engine rated at 180hp @ 2700rpm.

The engine remained attached to the airframe by the engine mount. The engine had sustained moderate impact energy damage at the left front side. The engine was undamaged resulting from the post impact ground fire. The propeller remained attached at the crankshaft flange, with one blade captured under the engine and the opposing blade visible. There was no evidence observed consistent with a pre-mishap catastrophic mechanical malfunction or fire.

The top spark plugs were removed and photographed. The spark plugs (photos 21-23) remained undamaged at the electrodes and displayed a light gray/brown coloration. The cylinder(s) combustion chamber was examined through the spark plug holes utilizing a lighted bore scope. The combustion chambers remained undamaged, and there was no evidence of foreign object ingestion. The valves were intact and undamaged. There was no evidence of valve to piston face contact observed.

The left magneto was found securely clamped at the mounting pad. Magneto to engine timing could not be ascertained. After removal of the magneto, the impulse coupler drive was found intact and secure. The impulse coupler drive functioned normally during hand rotation of the drive. The magneto produced spark at the four leads during hand rotation the drive. Reference photographs 28-30 for views of the left magneto.

The right magneto was found securely clamped at the mounting pad. Magneto to engine timing could not be ascertained. After removal of the magneto, the drive was found intact and secure. The magneto produced spark at the four leads during hand rotation the drive. Reference photographs 31-33 for views of the right magneto.

The rocker cover was removed (photos 26-27) from the number 1 cylinder. The valve operating mechanism remained undamaged. Clean oil emanated from the rocker cavity upon removal of the cover. No metal contamination was observed.

An examination of the engine compartment and accessories revealed no evidence of fuel and/or oil leaks. All of the rear mounted accessories were found secure at their respective mounting pad.

The carburetor was inaccessible, but could be visually examined on-site. The carburetor had been displaced from the mounting pad as a result of impact energy. The throttle and mixture controls were attached at their respective control arm. The throttle was situated at about midrange travel. The mixture was situated near full rich travel.

The airplane wreckage and engine were subsequently retrieved from the site and moved to Beegles Aircraft Service, Greeley, Colorado. On October 20, 1999, investigators from the NTSB, FBI, FAA, The New Piper Aircraft Corp, and Textron Lycoming Air Safety conducted a subsequent examination of the engine at the retrievers facilities.

The propeller was removed to facilitate the examination. The top spark plugs were removed. The vacuum pump was removed, and the crankshaft was rotated by hand through the drive pad utilizing a drive tool. The crankshaft was free and easy to rotate in both directions. "Thumb" compression was observed in proper order on all four cylinders. The complete valve train was observed to operate in proper order, and appeared to be free of any pre-mishap mechanical malfunction. Normal "lift action" was observed at each rocker assembly. Clean, uncontaminated oil was observed at all four rockerbox areas. Mechanical continuity was established throughout the rotating group, valve train and accessory section during hand rotation of the crankshaft. The bottom spark plugs were removed, examined and photographed.

The carburetor (photos 50-53) had sustained impact energy and was subsequently detached from the engine. The portion of carburetor that remained attached at the mounting pad was secure. The fracture surface signatures (photo 54) were consistent with overload. The throttle and mixture controls were secure at their respective control arms. The carburetor was disassembled, examined and photographed. The carburetor had been subjected to post impact fire (thermal effect), evidenced by the solder on the float pontoons and float arm. The solder had once become molten and then cooled, leaving a drip appearance to the re-solidified solder. The drip and direction of solder run was consistent with the accident aircraft's resting position at the site. There was no fuel at the bowl. There was no visible contaminates found in the bowl or inlet filter. Reference photographs 55-59 for views of the carburetor as described.

The exhaust system was examined and appeared free of obstruction. The internal walls of the exhaust pipes and muffler displayed a gray/white gas path coloration. There was no oil residue observed in the exhaust gas path. Reference photographs 60-64 for views of the exhaust system.

The engine driven fuel pump was secure at the mounting pad (photo 43) with the fuel lines attached. The fuel pump was removed, examined and photographed. There was no obstruction or mechanical malfunction observed during the disassembly (photos 44-45) of the pump.

The oil sump was removed for examination. The oil sump contained a copious amount of clean oil. There was no metal contamination found. A paper clip (photo 71) was observed resting static in the bottom of the oil sump. The paper clip was intact and retained a normal shape.

The accessory gearbox cover (photo 67) was removed to expose the accessory gears and oil pump. The oil pump was observed to discharge oil from the outlet port during the previous hand rotation of the crankshaft. The oil pump was free to hand rotate at the drive. The fuel pump plunger was free to move in the bore. All of the accessory gears (photo 68) were found intact and undamaged. There was no heat distress observed at any of the moving parts. The crankshaft gear and dowel pin (photo 69) remained undamaged, secure and properly safetied.

The four cylinder assemblies were removed from the engine and examined. The cylinder(s) remained undamaged at the combustion chambers. The valves were intact and undamaged. There was no evidence of detonation or foreign object ingestion. The coloration of the cylinder environment was consistent with normal combustion and fuel/air mixture. The pistons remained intact and undamaged. The piston rings were intact and undamaged. The number 2 cylinder contained a small amount of pine needles and dirt. The ingestion of these debris was attributed to the damaged and detached intake pipe (photo 74) at the subject cylinder. There were no unusual signatures observed. Reference photographs 72-84 for views of the cylinder assemblies as described.

The crankcase halves were separated to gain access to the internal components of the engine. The crankshaft with attached connecting rods was intact and undamaged. There was no evidence of heat distress observed at any of the internal rotating components. The camshaft remained intact and undamaged. The cam lobes retained a normal profile with no adverse wear observed. The tappets were

intact and undamaged with no evidence of spalling. The main bearings remained undamaged and in good condition. There was no evidence of oil contamination observed. The main bearing saddles were absent of any significant fretting signatures. Reference photographs 85-91 for views of the components as described.

No pre-mishap engine discrepancies or mechanical malfunctions were observed during the examination.

Propeller Information

The metal, two bladed fixed pitch propeller remained attached at the crankshaft flange. The spinner was attached to the propeller. The propeller blades displayed leading edge gouging, cordwise striations across the cambered surface and trailing edge "S" Bending. The signatures were consistent with rotational forces applied at the crankshaft at the time of impact. Reference photographs 92-103 for views of the subject propeller.

TEXTRON Lycoming
Air Safety Investigation ✈

MISHAP INVESTIGATION REPORT

PHOTO LOG

DATE OF MISHAP: September 01, 1999
AIRCRAFT MODEL: PA-28-181
ENGINE MODEL: O-360-A4M

REGISTRATION: N4366D
LOCATION: Villa Grove, Colorado
SERIAL NUMBER: L-27490-36A

GENERAL ON-SCENE PHOTOGRAPHS

1-3.	Panoramic view of the accident site.
4-6.	General views of the accident site.
7-8.	The tail section and elevator.
9.	General view of instrument panel.
10.	Close view of pilots (left side) instrument panel.
11-12.	Views of the engine attached at nose section.
13-16.	General views of the engine.
17-20.	General views of the exposed propeller blade.
21-23.	Views of the top spark plugs, as removed.
24.	The fuel pump at the rear of the engine.
25.	The oil filter with recorded information written on the outside.
26-27.	The number 1 cylinder with the rocker cover removed.
28-30.	Views of the left magneto and cover.
31-33.	Views of the right magneto and cover.

GENERAL EXAMINATION PHOTOGRAPHS

34.	The firewall after engine removal.
35-41.	Views of the engine and propeller, as received for examination.
42.	The crankshaft flange and flywheel assembly, after propeller removal.
43.	The fuel pump at the mounting pad.
44-45.	Views of the disassembled fuel pump.
46-47.	Views of the vacuum pump.
48.	The oil filter media, as removed from filter canister.
49.	The starter.
50-54.	General views of the carburetor.
55-59.	Views of the disassembled carburetor.
60-64.	General views of the exhaust system gas path coloration.
65-66.	Views of the bottom spark plugs, as removed.
67.	The accessory gearbox cover, after removal from engine.
68.	The accessory gearbox, after removal of cover.
69.	The crankshaft gear and dowel pin.
70.	The oil sump, as removed.

71. The paper clip found in the oil sump.
72. The number 1 cylinder assembly with the rocker cover removed.
73. The number 3 cylinder assembly with the rocker cover removed.
74. The damage to the number 2 cylinder.
75. The number 2 cylinder assembly with the rocker cover removed.
76. The number 4 cylinder assembly with the rocker cover removed.
77-84. General views of the cylinder combustion chamber and piston, as marked.
85-87. Views of the camshaft and tappets.
88-89. The main bearings and saddles.
90-91. The crankshaft with attached connecting rods and gear.
92-94. Views of the propeller and identification stamps.
95-98. Views of the propeller blade with the curled tip.
99-103. Views of the opposing propeller blade.

FD-369 (Rev. 2-23-89)

ORIGINAL

FEDERAL BUREAU OF INVESTIGATION

REQUISITION FOR SUPPLIES AND/OR EQUIPMENT

797530
REQ. #

PAGE 1 OF 1

9/12/98
DATE

ASOU/CIRG/3980-07

APPROVED BY

JULIAN DATE

SUPPLY TECHNICIAN:
PROGRAM MANAGER:
FUNDING APPROVED
COTR:
Room # & Ext: Manassas Airport
703-257-0825

CONTRACT SPECIALIST:
Date Received:
PPMS APPROVAL:
PURCHASE ORDER #

b6
b7C

ITEM#	NATIONAL STOCK NUMBER	SER. #	FULL DESCRIPTION	UNIT OF ISSUE	QTY.	SUBOBJECT CLASS.	BI#	UNIT PRICE	TOTAL
			Colorado Skyways Company						
			1777 Aviation Way						
			Colorado Springs, CO 80916-2707						
			719-574-2111 ATTN:						
			Mountain Flight Training for 25 Bureau			2508			19,200
			Pilots in Colorado Springs during						
			August 2 - September 24, 1999						
			RECOMMENDED APPROVAL BY: Unit Chief						
			Aviation Special Operations Unit						

b6
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SPECIAL INSTRUCTIONS:
Ship to Code:
Delivery Restrictions:
Government's Estimate:
Previous PO #
Previous Contract #

JUSTIFICATION FOR THE PURCHASE OF NONEXPENDABLE ITEMS:

See attachment

See Instructions on Reverse

JUSTIFICATION

FOR

REQUISITION # 797530

Mountain Flying training has been provided to the Bureau Pilots for the past 9 years. The training consists of the review of Part 61 & 91 of the Federal Aviation Regulations (FARs), ground school pertaining to mountain flying and its effects on the operation of airplanes and approximately six hours of flight training in mountainous terrain including takeoffs and landings at high elevation airports.

Pilots assigned to the Bureau and who have not received this training in the past will be scheduled for this training session. The pilots will learn and experience the effect that high density altitude has on the performance of the airplanes they fly on a routine basis. They will also be able to identify areas of severe turbulence based on the configuration of the cloud layers and the wind direction and speed while in a mountainous terrain environment. They will become familiar in identifying safe mountain passages through map interpretation and visual mountain peak identification.

At the completion of this training, the pilots will have the knowledge and experience to improve their flying skills and safety when conducting flight operations in high mountainous terrain.

Colorado Skyways is recommended to provide this training as a sole source vendor. They have the facility, structured program, sufficient aircraft and flight instructors, expertise and knowledge to provide this type of training needed by the Bureau pilots without unnecessary delays due to adaption.

There are only two additional vendors in the Colorado Springs area. Contact with them resulted in the following findings.

Pikes Peak Flying Club - You have to be a dues paying member to rent their airplanes and they do not have a structured flight training program.

Arrow Aviation - Only has one Flight Instructor experienced in mountain training and the only training is a one hour indoctrination flight.

The listed vendors were the only ones in the Colorado Springs area. Two previous vendors, Emery Aviation College and Johnson & Johnson Educational Systems, both, recommended Colorado Skyways as a reputable flight training facility with well maintained airplanes.

The inclusive cost of this training is $18,000.

Precedence: ROUTINE Date: 08/11/1999

To: Administrative Services Attn: CIRG/ASOU
SSA [redacted] SA [redacted]

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b7C

From: El Paso
Squad 7
Contact: SA Paul A. LeVeille, 915/832-5000

Approved By: [redacted]

Drafted By: LeVeille Paul A:pal

Case ID #: 66F-IR-A5024 (Pending)

Title: FIELD HELICOPTER PROGRAM (FHP)
BUREAU AIRCRAFT OPERATIONS (BAO)
SPECIAL FLIGHT OPERATIONS (SFO)

Synopsis: To set forth personal qualifications for consideration as a field helicopter pilot.

Reference: 66F-IR-A5024 (Serial 72)

Details: In 1987 writer qualified in the TH-55 and UH-1 helicopters at the U.S. Army Initial Entry Rotary Wing Flight School, Fort Rucker, Alabama. Subsequently writer flew for the Maine Army National Guard. In 1990 writer was hired as a full-time (Active Duty Special Work) Counter-Drug pilot by the New Mexico Army National Guard. From 1991 to 1996 writer was a Pilot/Safety Officer/Operations Officer for the New Mexico National Guard's Reconnaissance And Interdiction Detachment (RAID). Writer was also the Commander of Detachment 1, 812th Medical Company (Air Ambulance), New Mexico Army National Guard, Santa Fe, New Mexico, from 1990 to 1993 and was mobilized for Operations Desert Shield/Storm.

Case ID : 66F-IR-A5024 Serial : 75
66H-EP-A31175 42

As a helicopter pilot engaged in our nation's war against illegal drugs writer was current and qualified in the UH-1H/V and the OH-58A720 and accumulated nearly 1,900 hours total rotary wing flight time. Writer has approximately 1,250 flight hours in the UH-1, 600 hours in the OH-58 and 50 hours in the TH-55. Writer's flight time includes 600 hours of Night Vision Device (NVD) time, including approximately 350 hours of thermal imaging (FLIR) time and 600 hours of pilot-in-command time in both the UH-1 and OH-58 helicopters. Writer holds a valid FAA Commercial Instrument Helicopter Pilot license, a Commercial Instrument Single-Engine Land Airplane license, a current second class medical certificate, and has over 2500 hours total flight time. Writer has extensive experience supporting various law enforcement agencies in tactical and support roles, including, but not limited to, the following:

U.S. Border Patrol
U.S. Bureau of Land Management
U.S. Drug Enforcement Administration
U.S. Customs Service
U.S. Bureau of Indian Affairs
U.S. Forestry Service
Various tribal police departments
Numerous state and local police departments, sheriff's departments and narcotics task forces

Writer has acquired varying levels of practical flight experience in the following areas:

* Aerial surveillance of stationary and mobile targets.
* Aerial thermal imagery search techniques.
* Aerial thermal imagery of indoor marijuana grows and methamphetamine labs.
* Aerial thermal imagery Disturbed Earth Syndrome searches.
* Operational tactical insertions/extractions (Day and NVD).
* Mountain and high desert operations.
* Mountain search and rescue.
* Aerial rapelling operations.

TOTAL

(1883 Hrs
617 AIRPLANES)

- 538.9

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MAY 19
JUN 22
JULY

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* Nap of the earth flight (Day and NVD).
* Formation flight (Day and NVD).
* Medical evacuation.
* Aerial photo reconnaissance.
* Hoist operations.
* Sling load operations.

Writer has experience with the following systems:

* Global Wulfsburg C-5000 law enforcement radio communications system.
* Motorola Saber airborne-mount radio system.
* FLIR Systems, Inc., FLIR-2000 Thermal Imaging System.
* Trimble GPS
* II-Morrow LORAN

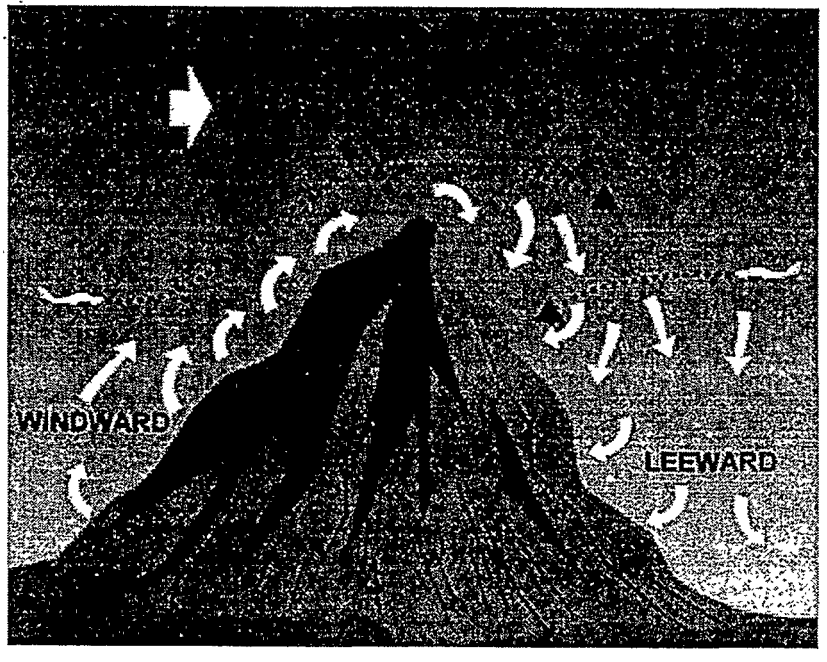
Writer has attended the following applicable schools or courses:

* Aviation Mishap Prevention Orientation Course (AMPOC).
* Reconnaissance And Interdiction Detachment (RAID) Qualification Course.
* Army Medical Service Corps Officer Basic Course
* Unit-Level Army NBC Officer School

Writer is actively assigned to the El Paso SOG with PIC and aviation related duties commanding approximately 60% of writer's time. Writer's EOD with the FBI is 03/03/1996 and writer received a superior performance rating on his last PAR.

AC 61-23C - PILOT'S HANDBOOK OF AERONAUTICAL KNOWLEDGE \ CHAPTER 5 - WEATHER \ The cause of atmospheric circulation \ Convection Currents \ Effect of Obstructions on Wind

This same condition is more noticeable where larger obstructions such as bluffs or mountains are involved. As shown in figure 5-15, the wind blowing up the slope on the windward side is relatively smooth, and its upward current helps to carry the aircraft over the peak. The wind on the leeward side, following the terrain contour, flows definitely downward with considerable turbulence and would tend to force an aircraft into the mountain side. The stronger the wind, the greater the downward pressure and the accompanying turbulence. Consequently, in approaching a hill or mountain from the leeward side, a pilot should gain enough altitude well in advance. Because of these downdrafts, it is recommended that mountain ridges and peaks be cleared by at least 2,000 feet. If there is any doubt about having adequate clearance, the pilot should turn away at once and gain more altitude. Between hills or mountains, where there is a canyon or narrow valley, the wind will generally veer from its normal course and flow through the passage with increased velocity and turbulence. A pilot flying over such terrain needs to be alert for wind shifts, and particularly cautious if making a landing.


WINDWARD
LEEWARD

DEMONSTRATION - PERFORMANCE METHOD

This method of teaching is based on the simple, yet sound, principle that we learn by doing. Students learn physical or mental skills by actually performing those skills under supervision. An individual learns to write by writing, to weld by welding, and to pilot an airplane by actually performing flight maneuvers. Students also learn mental skills, such as speed reading, by this method. Skills requiring the use of tools, machines, and equipment are particularly well suited to this instructional method.

Every instructor should recognize the importance of student performance in the learning process. Early in a lesson that is to include demonstration and performance, the instructor should identify the most important learning outcomes; next, explain and demonstrate the steps involved in performing the skill being taught; and finally, allow the students time to practice each step, and thus increase their ability to perform the skill.

The demonstration - performance method is widely used. The science teacher uses it during laboratory periods, the aircraft maintenance instructor uses it in the shop, and the flight instructor uses it in teaching piloting skills. The demonstration - performance method of teaching has five essential phases: (1) explanation, (2) demonstration, (3) student performance, (4) instructor supervision, and (5) evaluation.

{p36}

Explanation Phase

Explanations must be clear, pertinent to the objectives of the particular lesson to be presented, and based on the known experience and knowledge of the students. In teaching a skill, the instructor must convey to the students the precise actions they are to perform. In addition to the necessary steps, the instructor should describe the end result of these efforts. Before leaving this phase, the instructor should encourage the students to ask questions about any step of the procedure that they do not understand.

Demonstration Phase

AC 60-14 - AVIATION INSTRUCTOR'S HANDBOOK \ SECTION ONE: GENERAL \ CHAPTER V. TEACHING METHODS \ DEMONSTRATION - PERFORMANCE METHOD \ Demonstration Phase

The instructor must show the students the actions necessary to perform a skill. As little extraneous activity as possible should be included in the demonstration if the students are to clearly understand that the instructor is accurately performing the actions previously explained. If, due to some unanticipated circumstances the demonstration does not closely conform to the explanation, this discrepancy should be immediately acknowledged and explained.

AC 60-14 - AVIATION INSTRUCTOR'S HANDBOOK \ SECTION ONE: GENERAL \ CHAPTER V. TEACHING METHODS \ DEMONSTRATION - PERFORMANCE METHOD

Student Performance and Instructor Supervision Phases

AC 60-14 - AVIATION INSTRUCTOR'S HANDBOOK \ SECTION ONE: GENERAL \ CHAPTER V. TEACHING METHODS \ DEMONSTRATION - PERFORMANCE METHOD \ Student Performance and Instructor Supervision Phases

Because these two phases, which involve separate actions, are performed concurrently, they are discussed here under a single heading. The first of these phases is the student's performance of the physical or mental skills that have been explained and demonstrated. The second activity is the instructor's supervision.

Student performance requires the students to act and do. To learn skills, students must practice. The instructor must, therefore, allot enough time for meaningful student activity. Through doing, the students learn to follow correct procedures and to reach established standards. It is important that students be given an opportunity to perform the skill as soon as possible after a demonstration. In flight training, the instructor may allow the student to "follow-through" on the controls during the demonstration of a maneuver. Immediately thereafter, the instructor should have the student attempt to perform the maneuver, coaching as necessary. If, during a classroom period, students have been performing an operation in unison (a weight and balance computation, for example), prior to terminating the performance phase they should be allowed to complete the operation at least once independently, with supervision and coaching on an "as needed" basis.

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NTSB - DEN

EL PASO COUNTY CORONER
2743 EAST LAS VEGAS STREET
COLORADO SPRINGS, COLORADO 80906

NAME: BURNS, Charles ID: SAGUACHE

Date of Birth: 07/12/1942 Age: 57 AUT NO: **99A-346**
AUT DATE: 09/02/1999
Sex: M Ht: 60 ½"* Wt: 112.5 lbs.* BEGAN: 9:00 AM
ENDED: 11:30 PM
MD: DATE OF DEATH: 09/01/1999 b6 b7C
TIME OF DEATH: 8:30 AM (Approx.)

Authorized by: Saguache County Coroner

*Height and weight measurements are of a severely charred and deformed body.

FINAL DIAGNOSES:

1. Blunt force trauma of thorax and abdomen
   a. Lacerations, right lung, bilateral parietal pleura, liver, small bowel mesentery, left kidney, internal pelvic wall
   b. Fractures, multiple ribs, right hemipelvis
   c. Hemothoraces, 75 mL right, 150 mL left
   d. Hemoperitoneum, 100 mL
   e. Contusion, liver
2. Dislocations, right elbow and knee
3. Fracture, right ulna
4. Postmortem thermal injury
   a. Thermal burns covering 95% of the body
   b. Heat stress fractures, extremities
   c. Epidural "heat hematoma"
   d. Carbon monoxide not detected
   e. No soot in trachea or bronchi
5. Status post appendectomy, remote

TO: NTSB
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BY: 11/14/99 [redacted] b6 b7C

OPINION: This 57 year old man died as the result of blunt force trauma of the chest and abdomen incurred in a plane crash. Autopsy revealed a crushed rib cage and pelvis as well as lacerations of several internal organs and tissues which caused severe internal hemorrhage. The body was badly charred by fire, but there was no soot in the lungs or detectable carbon monoxide in the blood, indicating that death had already occurred before the fire broke out. Toxicological analyses found no evidence of common drugs of abuse or significant ethanol.

MANNER OF DEATH: Accident.

TOXICOLOGY:

Carbon monoxide = Negative; Hgb = 6.1 g/dl
Blood alcohol = if present, < 10 mg/dl
Urine alcohol = if present, < 10 mg/dl
Drugs of abuse = Negative
GC/MS analysis of urine revealed only caffeine; no other drugs detected.

[redacted]

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[redacted]

September 29, 1999

HISTORY AND CIRCUMSTANCES: According to reports, this 51 year old flight instructor was flying in a Piper Archer plane with an FBI agent (reference EPCCO case #99A347), who was also a pilot, giving him instruction on flying over mountainous terrain, when their plane suddenly crashed in the Sangre de Cristo Mountains near Salida. It was not known which man was flying the plane at the time of the crash, nor why the crash occurred. The plane was broken into small pieces by the impact and witnesses noted a fire broke out after the crash.

GENERAL EXAMINATION

An autopsy is conducted on the unembalmed, refrigerated body of the extensively charred remains of a formerly well-developed, well-nourished, adult, Caucasian, male who appears compatible with the stated age of 57 years insofar as can be determined from examination of the charred body. The autopsy is conducted in the presence of Special Agents [redacted] of the Federal Bureau of Investigation. No identification tag is on the blue disposable body bag which is around an aluminium foil protective blanket wrapped around the body which is received unclad except for a few remaining fragments of charred fabric consisting of a portion of left rear trouser pocket, a scrap of cotton T-shirt with a lower hem, a portion of underbriefs, all of which are found beneath the buttocks, and a fragment a gray knit shirt over a fragment of white T-shirt found underneath the right axilla where the overlying arm has protected it from burning. Valuables include two "GM" car keys and a small yellow metal key on a ring plus a loose key with no markings that appears to be a car key, and 86 cents in coins, all of which were found loose beneath the buttocks and thigh region.

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Identification of the remains is made by [redacted] by comparison of dental records.

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EXTERNAL EXAMINATION: The body is cool to touch. Rigor mortis cannot be assessed in the jaw and the extremities secondary to the heat-induced tightening of muscle and skin. Livor mortis is not distinguishable secondary to severe skin charring.

The head shows extensive charring with most portions of the ears and nose gone, and the eyes are completely burned over. The lids can be separated to retrieve vitreous, however nothing can be said about the eye color as the heat has turned the

eyes white. No portions of the scalp remain with hair, nor is there any facial hair appreciated. The mouth is open with a protruding tongue that has been severely charred. The upper anterior teeth are visible and are in good repair. There is no evidence of trauma within the oral cavity. The chest is well-developed and symmetrical with extensive thermal injuries described below. The abdomen is flat, and the external genitalia are recognizable male, but the presence or absence of circumcision cannot be determined. The extremities are fixed in the pugilistic attitude with flexion contractures at all joints except the left knee. The back shows severe thermal charring except over the right buttock, and there is no blood or stool at the anus.

No identifiable marks or scars are readily apparent.

EVIDENCE OF MEDICAL INTERVENTION: There is no evidence of medical intervention.

EVIDENCE OF INJURY

HEAD AND NECK: The entire head is blackened by full-thickness burn which has not, however exposed the underlying skull. No scalp hair is visible, and the ears and nose are merely swellings suggestive of where they once were. Over the neck the skin is thickened and charred, but still relatively intact. The skull has no fractures, but a 50 gm heat-coagulated chocolate brown epidural hemorrhage lies over the posterior one-half of the skull and is crumbly and has a honeycomb appearance. The surface of the brain shows no evidence of hemorrhage or any other injury; however, it is quite heat coagulated.

THORAX AND ABDOMEN: Most of the skin except for the lower central chest is heavily charred but still intact. There is an area of relatively well-preserved unburned skin which has been protected by the right arm being folded over the chest. Over the abdomen, the skin has been completely charred away revealing charred muscle underneath which has been almost burned completely through to the abdominal cavity. A small amount of brown pubic hair is identified in the right inguinal region where it has been somewhat protected by the flexion of the right thigh against the abdomen. Most of the skin over the back remains although it is heavily charred. On the upper right back extending onto the right shoulder the skin is charred completely away revealing charred deep muscle.

Internally the sternum is fractured at the T-3 level, and there are multiple rib fractures including anterior fractures of the right third through sixth ribs, lateral fractures of the right third through ninth ribs, and posterior fractures of right ribs eight through twelve. On the left side the third rib is fractured four times anteriorly and once laterally, the fourth rib is fractured three times anteriorly, the fifth rib is fractured anteriorly and laterally, the sixth rib is fractured twice anteriorly and twice laterally, the seventh rib is fractured three times laterally, the eighth and ninth ribs are fractured twice laterally, and the tenth through twelfth ribs are fractured once posteriorly. Within the right pleural cavity are 75 mL of chocolate-colored blood, and 150 mL of chocolate-colored blood is in the left pleural cavity. In the abdominal cavity are approximately 100 mL of diffuse blood which is fresh-appearing. Many of these rib fractures lacerate the parietal pleura bilaterally. There is a 5 cm tear of the right mediastinal pleura next to the spine, and a 2 cm laceration of the middle lobe of the right lung. The liver shows two 3 cm long lacerations which are superficial, one at the anterior edge, and the other on the dome of the right lobe. There is a 4 x 2 cm contusion located along the falciform ligament. The pancreas is surrounded by hemorrhage within the soft tissue. There are several tears of the mesentery of the small bowel, the largest being a 10 to 12 cm tear of the root. The testes are quite cooked-appearing and shriveled, with the left being worse than the right. The kidneys have a pale brown heat-coagulated appearance. There is a 2 cm laceration on the left kidney. In conjunction with a crushing fracture of both the inferior and superior pubic rami on the right, there are multiple lacerations of the pelvic wall.

UPPER EXTREMITIES: The skin over the upper right arm and posterior left forearm is largely gone, exposing severely charred muscle in the right arm and the tendons in the left forearm. There is a dislocation of the right elbow, and the protruding distal humerus is quite charred, suggesting this probably is an antemortem fracture. The right ulna is fractured, but the protruding bone lacks charring, suggesting that this is a heat-induced fracture. The right elbow is flexed to an angle of 90 degrees over the chest, and the right hand forms a fist. The fingers are intact on the right and there is a splintered fracture of the proximal phalanx of the right thumb, but this appears to be heat-induced, as the protruding bone is not charred. The left forearm is more severely flexed to an angle of approximately 80 degrees to the arm, and also lies over the chest. The wrist is abducted and the left hand makes a claw-like fist which has lost the distal phalanges and is charred down to the ends of the metacarpals.

LOWER EXTREMITIES: Both lower extremities are charred down to the superficial muscle. The right knee is dislocated with the distal femur protruding and charred. The right leg is bent back under the body at an angle of 90 degrees. Most of the right buttock and a portion of the proximal posterior right thigh show more relatively preserved obviously Caucasian skin. The left leg is extended, and both feet are dorsiflexed. The distal legs and feet are much more severely charred than the thighs, in some cases being charred down to the bone. There are multiple heat stress fractures of the distal legs and feet.

INTERNAL EXAMINATION: The subcutaneous adipose tissue over the anterior thorax measures to 1 cm, and that over the anterior abdomen to 1 cm. There are no adhesions in any of the body cavities except for one adhesion between the upper lobe of the right lung and the lateral right chest wall. Abnormal collections of fluid have been described previously. All body organs are present in normal anatomic position except the appendix which is not identified.

CARDIOVASCULAR SYSTEM: The heart weighs 300 g. The pericardial surfaces are smooth, glistening, and unremarkable. The pericardial sac is free of significant fluid or adhesions. The coronary arteries arise from patent coronary ostia, follow a right predominant pattern of distribution, and are free of significant atherosclerotic plaque. The atrial and ventricular septa are intact, and the chambers and valves bear the usual size-position relationships. The valve cusps and leaflets are normally formed, thin and delicate, and there is no thickening or shortening of the chordae tendineae. The myocardium is firm, homogeneous, and red-brown, lacking hemorrhage and scarring. The aorta and its major branches arise normally and follow the usual course with no evidence of significant atherosclerosis. The inferior vena cava and its major tributaries return to the heart in the usual distribution and are unremarkable.

RESPIRATORY SYSTEM: The right and left lungs weigh 380 g and 400 g respectively. The upper and lower airways are patent and the mucosal surfaces are smooth, yellow-tan, and unremarkable with no evidence of soot. The pleural surfaces are smooth, glistening, and free of adhesions except on the right upper lobe. There is mild subpleural anthracosis and evidence of injury to the right middle lobe as described above. The pulmonary parenchyma is dark red-purple and exudes mild amounts of blood and fluid. The pulmonary arteries are normally developed and patent.

GASTROINTESTINAL SYSTEM: The esophagus is lined by a smooth pink-purple to wrinkled tan-white mucosa. The gastric mucosa is arranged in the usual rugal folds, and within the lumen of the stomach are 5 mL of thick pasty green material. Except for the evidence of injury described previously, the small and large bowel are unremarkable with soft unformed stool in the colon. The vermiform appendix is not identified. The pancreas is comprised of pink-red lobular autolyzed nonhemorrhagic tissue.

LIVER AND BILIARY SYSTEM: The liver weighs 1100 g. There are two minor injuries to the hepatic capsule, but otherwise it is smooth, dull, and intact covering a light brown parenchyma which is somewhat heat-coagulated. The gallbladder contains 4 mL of viscid yellow-green bile but no calculi.

GENITOURINARY SYSTEM: The right and left kidneys weigh 100 g and 120 g respectively. The renal capsules are smooth, thin, semitransparent, and strip with ease from the underlying smooth, pale brown, heat-coagulated, firm, cortical surfaces. There is evidence of injury to the left kidney as described above. The cortices are sharply delineated from the medullary pyramids. The calyces, pelves, and ureters are unremarkable. The urinary bladder contains 120 mL of red-tinged urine; the mucosa is gray-tan and smooth. The testes show severe thermal injury as described previously. The prostate is unremarkable.

RETICULOENDOTHELIAL SYSTEM: The spleen weighs 100 g. The purple-gray capsule covers a soft maroon parenchyma in which lymphoid follicles are not discernible. There is no generalized lymphadenopathy, and a section of rib shows the bone marrow to be dark red and homogeneous without evidence of focal abnormality.

ENDOCRINE SYSTEM: The pituitary, thyroid, and adrenal glands are grossly unremarkable.

MUSCULOSKELETAL SYSTEM: Except for the evidence of injury described previously, the bony framework, supporting musculature, and soft tissue are unremarkable.

NECK: Examination of the soft tissues of the neck, including strap muscles and large vessels, reveals no abnormalities except for severe heat-coagulation of the

tissue. The hyoid bone and larynx are intact. No soot is found in the trachea nor evidence of thermal damage to the epiglottis. The tongue shows charring at the tip as described previously.

CENTRAL NERVOUS SYSTEM: The brain in the fresh state weighs 1080 g. It is severely heat-coagulated as described previously. The dura mater and falx cerebri are intact, and the leptomeninges are thin and delicate. The cerebral hemispheres are symmetrical. The structures at the base of the brain, including cranial nerves and blood vessels, are intact and free of abnormality. Multiple coronal sections through the cerebral hemispheres reveal no lesions within the cortex, subcortical white matter, or deep parenchyma of either hemisphere. The cerebral ventricles are of normal caliber. Sections through the brain stem and cerebellum are unremarkable. The spinal cord is not examined.

SPECIMENS: Specimens of central and heart blood, femoral blood, urine, and vitreous are submitted to the toxicology laboratory of the El Paso County Coroner's Office for toxicological analyses. Specimens of organs are retained in 10% formalin. Also collected and sent to the Federal Aviation Administration are specimens of bile and gastric content as well as brain, liver, spleen, kidney, lung, heart, and muscle tissue.

PHOTOGRAPHS: These are taken by Deputy Coroner [redacted] depicting the body as received, the facial features, and evidence of injury. b6 b7C

X-RAYS: Multiple radiographs are taken of the entire body showing no retained radiopaque missiles.

EVIDENCE: None.

MICROSCOPIC EXAMINATION

LIVER: Minimal macrovesicular steatosis; otherwise unremarkable.

KIDNEY: Minimal intimal fibroelastic hyperplasia and arteriolar thickening.

LUNGS: Mild peribronchiolar anthracosis, but no evidence of soot deposition in airways or alveoli.

HEART: Unremarkable.

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TO: NTSB
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BY: 11/16/99
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EL PASO COUNTY CORONER
2743 EAST LAS VEGAS STREET
COLORADO SPRINGS, COLORADO 80906

NAME: LEVEILLE, Paul ID: FBI

Date of Birth: 10/14/1959 Age: 39 AUT NO: **99A-347**
AUT DATE: 09/02/1999
Sex: M Ht: 66"* Wt: 134.5 lbs.* BEGAN: 1:00 PM
ENDED: 2:30 PM
MD: DATE OF DEATH: 09/01/1999
TIME OF DEATH: 8:30 AM (Approx.)

Authorized by: Saguache County Coroner

*Height and weight measurements are of severely charred and deformed remains.

FINAL DIAGNOSES:

1. Blunt force trauma of thorax and abdomen
   a. Avulsion of left lower rib cage and left side of abdomen with evisceration of small bowel and lacerations of colon
   b. Fractures, multiple ribs
   c. Hemothorax, 100 mL right
   d. Hemopericardium, 15 mL
2. Fractures, right femur, tibia, and fibula
3. Postmortem thermal injury
   a. Thermal burns covering 98% of the body
   b. Heat stress fractures, extremities
   c. Epidural "heat hematoma"
   d. Carbon monoxide saturation: 1.3%
   e. No soot in trachea or bronchi
4. Cholesterolosis, gallbladder

OPINION: This 39 year old man died as the result of blunt force trauma of the chest and abdomen incurred in a plane crash. Autopsy revealed a gaping wound over the left side of the torso, which involved the lower half of the rib cage and the left half of the abdomen. The small bowel was completely missing. The body was severely charred by fire, but there was no soot in the lungs or detectable carbon monoxide in the blood, indicating that death had already occurred before the fire broke out. Toxicological analyses found no evidence of common drugs of abuse. The blood and urine were positive for a low level of ethanol, but the vitreous was negative. Because this body was still reportedly burning when placed in the aluminum pouch, it is likely that body temperature remained elevated for a

OPINION (Continued): prolonged time, allowing postmortem fermentation which would account for the alcohol seen in the blood and urine. Vitreous humor is in a more protected anatomical site more difficult for microorganisms to colonize following death. Examination of internal organs showed increased autolysis, or self-digestion of organs had occurred as well than would normally be expected.

MANNER OF DEATH: Accident.

TOXICOLOGY:

Blood carbon monoxide = 1.3%; Hgb = 12.1 g/dl

Blood alcohol = 40 mg/dl
Urine alcohol = 12 ng/dl
Vitreous alcohol = Negative

Drugs of abuse = Negative

GC/MS analysis of urine revealed the presence of caffeine; no other drugs detected.

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[redacted]

September 29, 1999

HISTORY AND CIRCUMSTANCES: According to reports, this 39 year old FBI agent-pilot was flying in a Piper Archer plane with a private flight instructor (reference EPCCO case #99A346), who was giving him instruction on flying over mountainous terrain, when their plane suddenly crashed in the Sangre de Cristo Mountains near Salida. It was not known which man was flying the plane at the time of the crash, nor why the crash occurred. The plane was broken into small pieces by the impact and witnesses noted a fire broke out after the crash.

GENERAL EXAMINATION

An autopsy is conducted on the unembalmed, refrigerated, extensively charred remains of a formerly well-developed, well-nourished, adult, Caucasian, male who, insofar as can be determined, appears compatible with the stated age of 39 years. The autopsy is conducted in the presence of Special Agents [redacted] and [redacted] of the Federal Bureau of Investigation. Assisting at the autopsy is Deputy Coroner [redacted]. There is no identification tag. The body is received inside a blue disposable body bag wrapped in an aluminum foil sheet secured around the body with duct tape. Also inside the bag is a white paper/plastic disposable drape and a roll of duct tape. The body is unclad except for a few remaining fragments of charred fabric consisting of a fragment of a sweater-type garment found under the left buttock and a remnant of a light colored T-shirt-type fabric found on the upper left chest protected by the folded left arm. A 5 cent coin is found loose in the aluminum bag.

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Following the autopsy positive identification of the body is made by [redacted] based on a comparison of dental records.

EXTERNAL EXAMINATION: The body is cold to touch. Rigor mortis cannot be assessed in the jaw and the extremities secondary to the heat-induced tightening of muscle and skin. Livor mortis is not distinguishable secondary to severe skin charring.

The head shows extensive charring with the ears entirely gone and the nose almost completely missing as well. The eyelids are extensively charred but can just barely be opened revealing severe heat coagulation, making a determination of eye color impossible. There is complete loss of tissue over the left frontoparietal region of the skull, exposing the bone underneath. No scalp or facial hair remains. The mouth is slightly open with protrusion and charring of the tip of the tongue. The upper teeth are exposed, and they appear to be in good repair. There is no evidence of trauma

within the oral cavity. The chest appears to have been well-developed and symmetrical with extensive thermal injuries described below. The abdomen is flat but with extensive injury. The external genitalia can be determined as male, but details such as the presence or absence of circumcision are not identifiable. The extremities are absent their most distal portions as described below and are fixed in the pugilistic attitude with flexion contractures at all remaining joints. The back shows severe thermal charring, and there is no blood or stool at the anus.

No identifiable marks or scars are readily apparent.

EVIDENCE OF MEDICAL INTERVENTION: There is no evidence of medical intervention.

EVIDENCE OF INJURY

HEAD AND NECK: The entire head is charred by full-thickness burn which has gone down to the bone on the left side of the head. No scalp or facial hair is visible, the ears are missing, and the nose is merely a swelling suggestive of where it once was. The skull has no fractures, but a 60 gm heat-coagulated epidural hemorrhage lies over the entire rear portion of the skull and has the characteristic chocolate color and crumbly or honeycomb appearance of a postmortem fire epidural. There is no evidence of antemortem injury to the brain, and the entire brain is heat-coagulated.

THORAX AND ABDOMEN: The skin has been entirely charred away revealing charred muscle underneath over the upper half of the chest and is charred through the muscle over the lower half and abdomen. On the left half of the lower chest and abdomen there is complete loss of the rib cage and body wall to such a degree that it appears to be a genuine antemortem injury. Although there is severe charring around the external genitalia, enough of the penis and testes remain to identify that they are male. Some brown pubic hair remains which lies in a protected area of undamaged skin in the left femoral region. The back is likewise charred down to the muscle.

Internally there are multiple rib fractures. The right third through fifth ribs are fractured anteriorly, as are the left third and fourth ribs. The left fifth rib is missing anteriorly, and the sixth through twelfth ribs are absent. Because of the gaping hole the entire lower lobe of the left lung is heat-coagulated. No evidence of lacerations can be seen either on the lower lobe or the upper lobe. No fluid remains in the pleural cavity on that side. In the right pleural cavity are 100 mL of blood, and

within the pericardial sac are 15 mL of blood. There is a 2 cm charred hole in the anterior pericardial sac which is somewhat adherent to the overlying sternum. In the abdominal cavity, the spleen is severely heat-coagulated and charred, as is the left lobe of the liver. No lacerations are identified on either organ, however. The left kidney is partially exposed and charred. The small bowel cannot be identified, and there are multiple lacerations of the colon and its mesentery. All the muscular tissue and internal viscera have a cooked appearance. There is only a small amount of diffuse blood found within the abdominal cavity.

UPPER EXTREMITIES: All skin is gone from the upper extremities, exposing severely charred muscle. The right forearm is severely flexed leaving only a 45 degree angle between them. The right forearm has apparent heat fractures through the radius and ulna. The left arm is similarly charred and is bent up and around over the anterior chest with the forearm at a 90 degree angle. The left humerus is fractured at the elbow resulting in protruding bone which is mostly uncharred. There are apparent heat fractures of the distal radius and ulna on the left and both hands are flexed to 90 degree angles and charred to stumps at the ends of the metacarpal bones.

LOWER EXTREMITIES: Both lower extremities are charred down to the muscle. The right knee region has protruding bone sticking out which is charred, suggesting that the femur was damaged antemortem. Likewise the tibia and fibula on the right appear by postmortem radiograph to be too severely crushed to be heat fractures, and the exposed core of the tibia is quite charred. The right leg is doubled back on itself with the foot underneath the right buttock. The toes are charred but still fairly intact. On the left there is a probable heat fracture of the knee with uncharred distal femur protruding. The leg is flexed back on itself and the foot is plantar flexed with all the toes missing down to the metatarsals which are charred. Both thighs are flexed at the hips to an approximately 90 degree position.

INTERNAL EXAMINATION: The subcutaneous adipose tissue over the anterior thorax is gone, but that over the anterior abdomen measures to 3 cm. There are no adhesions in any of the body cavities, and abnormal collections of fluid have been previously described. All body organs except the small intestine are present in normal anatomic position.

CARDIOVASCULAR SYSTEM: The heart weighs 400 g. The pericardial surfaces are smooth, glistening, and unremarkable. The pericardial sac contains blood as described previously, but no adhesions. The coronary arteries arise from patent coronary ostia, follow a right predominant pattern of distribution, and are free of significant atherosclerotic plaque. The atrial and ventricular septa are intact, and the chambers and valves bear the usual size-position relationships. The valve cusps and leaflets are normally formed, thin and delicate, and there is no thickening or shortening of the chordae tendineae. The myocardium is somewhat soft, homogeneous, and light brown, lacking hemorrhage and scarring. The aorta and its major branches arise normally and follow the usual course with no evidence of significant atherosclerosis. The inferior vena cava and its major tributaries return to the heart in the usual distribution and are unremarkable.

RESPIRATORY SYSTEM: The right and left lungs weigh 960 g and 550 g respectively. The upper and lower airways are patent and the mucosal surfaces are smooth, autolyzed, and unremarkable. The pleural surfaces are smooth, glistening, and free of adhesions on the right. The left lower lobe is heat-coagulated as described previously. Elsewhere pulmonary parenchyma is dark red-purple and exudes moderate amounts of blood and fluid. The pulmonary arteries are normally developed and patent.

GASTROINTESTINAL SYSTEM: The esophagus is lined by a smooth green-purple mucosa. The gastric mucosa is arranged in the usual rugal folds, and within the lumen of the stomach are less than 10 mL of pasty green and yellow solid material. The small bowel is not identified, and the large bowel shows evidence of injury as described previously. There is soft unformed stool in the colon. The vermiform appendix is present. The pancreas is comprised of pink-red lobular autolyzed nonhemorrhagic tissue.

LIVER AND BILIARY SYSTEM: The liver weighs 1575 g. There is evidence of thermal injury as described previously. The hepatic capsule is smooth and intact covering a light brown firm parenchyma which is heat-coagulated in those areas that are not charred. The gallbladder contains no bile secondary to an inadvertent tear during the removal of the large bowel. The gallbladder wall shows mild cholesterolosis.

GENITOURINARY SYSTEM: The right and left kidneys weigh 150 g and 125 g respectively. The renal capsules are smooth, thin, semitransparent, and strip with ease from the underlying smooth, pale brown cortical surfaces. The right kidney is

soft and somewhat autolyzed. The left kidney is firm and heat-coagulated with some charring. The cortices are sharply delineated from the medullary pyramids. The calyces, pelves, and ureters are unremarkable. The urinary bladder contains 200 mL of clear yellow urine; the mucosa is gray-tan and smooth. The prostate is unremarkable. The testes are quite charred and shrunken, but still recognizable internally.

RETICULOENDOTHELIAL SYSTEM: The spleen weighs 50 g. The organ is largely charred and quite shrunken. There is no generalized lymphadenopathy, and a section of rib shows the bone marrow to be dark red and homogeneous without evidence of focal abnormality.

ENDOCRINE SYSTEM: The pituitary and thyroid glands are grossly unremarkable. The adrenal glands are quite autolyzed.

MUSCULOSKELETAL SYSTEM: The bony framework, supporting musculature, and soft tissue are unremarkable except for the fractures described previously and the evidence of heat coagulation throughout all muscle groups that are not charred.

NECK: Examination of the soft tissues of the neck, including strap muscles and large vessels, reveals no abnormalities in addition to the muscular charring. The hyoid bone and larynx are intact. No soot is in the trachea, but the respiratory mucosa is quite darkened by the overlying charring and is autolyzed. There is evidence of heat-coagulated blood within the trachea. The tongue shows evidence of charring on the tip as described previously.

CENTRAL NERVOUS SYSTEM: The brain in the fresh state weighs 1125 g. The dura mater and falx cerebri are intact, and the leptomeninges are thin and delicate. The brain is quite heat-coagulated and fixed, but does show some signs of autolysis with a tendency to be quite friable. The cerebral hemispheres are symmetrical. The structures at the base of the brain, including cranial nerves and blood vessels, are intact and free of abnormality. Multiple coronal sections through the cerebral hemispheres reveal no lesions within the cortex, subcortical white matter, or deep parenchyma of either hemisphere. The cerebral ventricles are of normal caliber. Sections through the brain stem and cerebellum are unremarkable. The spinal cord is not examined.

SPECIMENS: Specimens of heart blood and vitreous are submitted to the toxicology laboratory of the El Paso County Coroner's Office for toxicological analyses. Specimens of organs are retained in 10% formalin. A toxicology kit is prepared for the Federal Aviation Administration with specimens of blood, urine, vitreous, and gastric contents, as well as brain, liver, spleen, kidney, lung, muscle, and heart tissue.

PHOTOGRAPHS: These are taken by Deputy Coroner [redacted] depicting the body as received the facial features, and evidence of injury. b6 b7C

X-RAYS: Multiple x-rays are taken showing no radiopaque retained missiles.

EVIDENCE: None.

MICROSCOPIC EXAMINATION

LIVER: Minimal macrovesicular steatosis; moderate colonization by postmortem rod-shaped bacteria.

KIDNEY: Autolysis with gas bubble formation and postmortem colonization.

LUNGS: Edema-like fluid in many regions that cannot be distinguished from the severe autolysis in some areas; no evidence of inhaled soot.

TRACHEA: Intact respiratory mucosa with no evidence of thermal injury or soot inhalation.

HEART: Autolysis with moderate colonization by the same organisms.

[redacted] b6 b7C

FEDERAL BUREAU OF INVESTIGATION

Date of transcription 09/11/99

[redacted] a Rotary Wing Pilot for U.S. West Communication was interviewed at his place of business, 7425 South Peoria, Inglewood, Colorado where he provided the following information. b6 b7C

He has been employed as a Helicopter Pilot for U.S. West Communications in Colorado since 1970. He has accumulated over 9,000 hours of pilot time in helicopters with over 8,000 hours in Mountainous terrain. During normal mission for U.S. West he regularly lands at helipads that are from 9,000 to 12,500 feet above ground level (AGL).

On September 1, 1999, at approximately 8:40 a.m., he was flying his company's BH206BII, Bell Long Ranger Helicopter Registration# N937S into the Salida Colorado Airport when he heard a call on the airports' UNICOM frequency about a missing aircraft that had been part of a training flight of three FBI airplanes. He immediately offered "take a look " in the area where a column of smoke had been reported.

Within a few minutes he arrived at an area of a small canyon approximately 10 miles Southeast of the airport. He entered the canyon from the right or South side and quickly encountered a strong down draft, which he estimated to be as much as 1200 feet per minute. He then immediately decelerated the helicopter to the best rate of climb airspeed of 60 knots and pulled in 85 to 90% power. Although his ship was lightly loaded with only one passenger, a technician named [redacted] and less than a half tank of fuel, his helicopter was still descending at a rate of 700 feet per minute. b6 b7C

At this point he had concern about his aircraft's ability to safely turn out of the canyon because of both the down draft and the fact that the canyon was "so tight". He was not initially surprised to have encountered a down draft as the winds, which are normally out of the Southwest this time of the year, had been coming out of the Southeast during the week and had been increasing every day. He also reported that as he entered the canyon the sun was directly in his eyes and that he had difficulty judging the depth of the canyon.

Investigation on 09/03/99 at Ingelwood, Colorado

File # 66H-IR-A5346 Date dictated 06/11/99

by SA [redacted] b6 b7C

This document contains neither recommendations nor conclusions of the FBI. It is the property of the FBI and is loaned to your agency; it and its contents are not to be distributed outside your agency.

b6
b7C

After maneuvering away from the South wall of the canyon, he was able to circle over the area of smoke and identify a crashed airplane. The aircraft was fully engulfed in a fire that had spread into a 25 yard ring. He was not able to identify any bodies or survivors from the wreckage. After circling the area several times without being able to see any signs of survivors, he then returned to Salida airport and made a report of a downed aircraft to the Flight Service Station (FSS).

09/01/99 AIRMEN CERTIFICATION SYSTEM 12:44
AIRMEN INQUIRY

Name : BURNS, CHARLES LLOYD
SSN : 561-58-2766 DOB: 07/12/1942 POB: WICHITA, KS
Height : 67 Wght: 144 Hair: BROWN Eyes: BLUE Sex: M Ctzn: USA
Status : Info: Images: N Stcl:
Updated: 05/15/1999 ReviewDt: 06/23/1998 RtnMail:
Street : 4379 N CAREFREE CIR A-Dte: 05/06/1999
: Cnty: 041
City : COLORADO SPRINGS St/Cntry: CO Zip: 80917-2138

* * * * * P R I O R D A T A * * * * *

Street : 9423 FREMONTIA AVE A-Dte: 02/16/1995
: Cnty: 071
City : FONTANA St/Cntry: CA Zip: 92335-2503

* * * * * * M E D I C A L * * * * * *

Class : SECOND Code: 22 Date: 02/22/1999 MID: 99038219 Path:
PrevMid: 98041971 97026933 96040240 95075699 94220899 92074652
RSTRCTN: 02 MUST WEAR CORRECTIVE LENSES.

* * * * C E R T I F I C A T E S * * * *

CertLev: COMMERCIAL PILOT Cert No: 561582766
DOI : 11/07/1997 Orig-DOI: N/A Exp Dte: N/A Cert Info:
Seal : BLUE FI Cert: 001145711 App Sch:
DsgExmr: 001432228 Insp: Updated: VN45G7Z 01/29/1998
Ratings: C/ASEL C/AMEL C/INSTA
Micros : 66901243 73312986 75523020 82593238 83000376

* *

CertLev: FLIGHT INSTRUCTOR Cert No: 561582766
DOI : 05/07/1998 Orig-DOI: 02/29/1996 Exp Dte: 05/31/2000 Cert Info:
Seal : BLCK FI Cert: App Sch:
DsgExmr: 001432228 Insp: Updated: VN46AVN 06/23/1998
Ratings: F/ASE F/INSTA
Limits : VALID ONLY WHEN ACCOMPANIED BY PILOT CERTIFICATE NO. 561582766.
EXPIRES: 31 MAY 2000.
Micros : 77802416 78482119 79212263 83161190 84040615

* * E N D O F C E R T I F I C A T E S * *

09/01/99 AIRMEN CERTIFICATION SYSTEM 13:27
AIRMEN INQUIRY

Name : LEVEILLE, PAUL ANDREW
SSN : 086-56-2153 DOB: 10/14/1959 POB: BANGOR, ME
Height : 73 Wght: 216 Hair: BROWN Eyes: BLUE Sex: M Ctzn: USA
Status : Info: Images: N Stcl:
Updated: 04/08/1999 ReviewDt: 08/28/1998 RtnMail:
Street : 601 CELESTE ST A-Dte: 05/16/1997
: Cnty: 141
City : ANTHONY St/Cntry: TX Zip: 79821-5101

* * * * * P R I O R D A T A * * * * *

Street : 158 MARRINER ST A-Dte: 01/23/1989
: Cnty: 005
City : SOUTH PORTLAND St/Cntry: ME Zip: 04106-2938

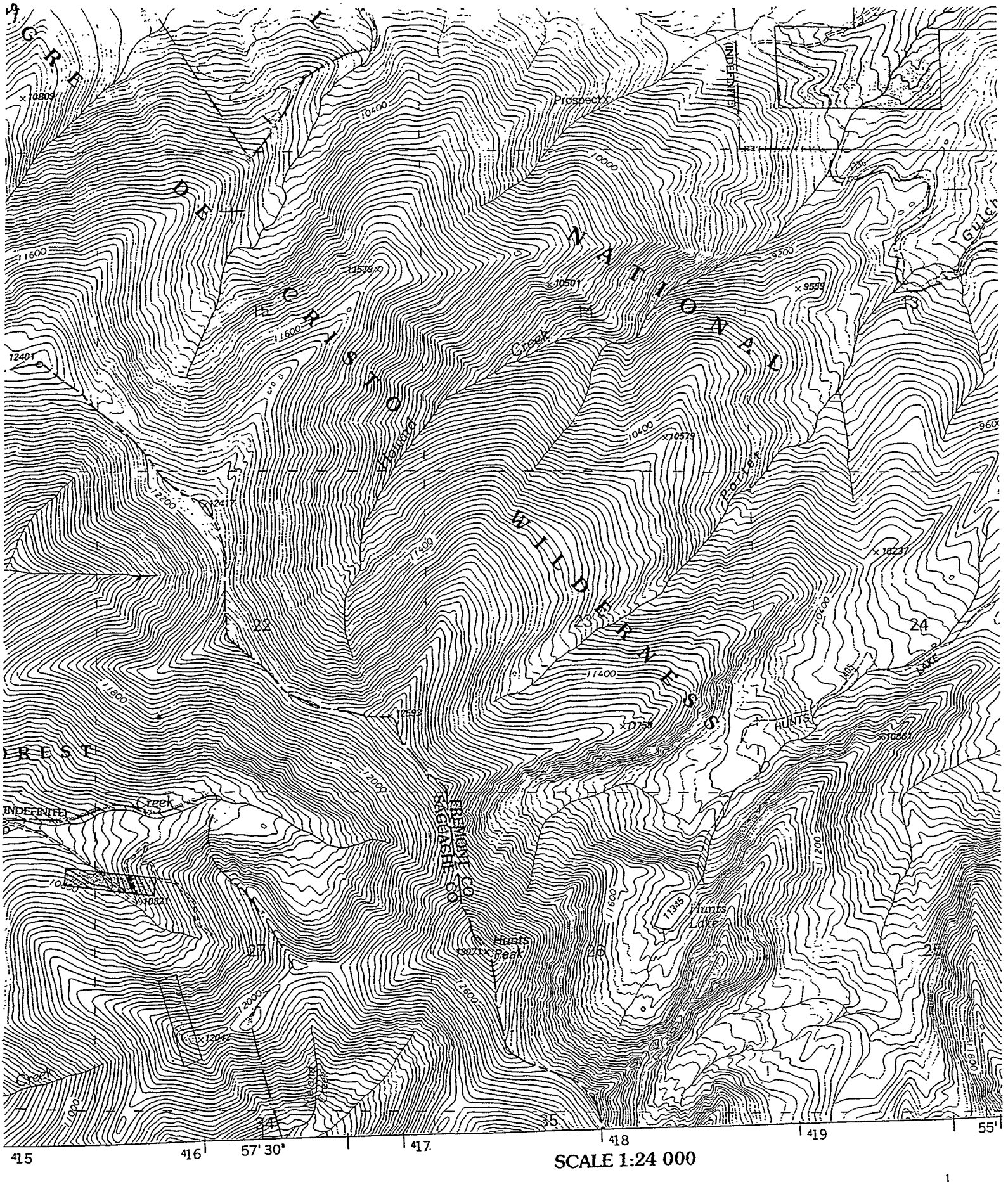
* * * * * * M E D I C A L * * * * * *

Class : SECOND Code: 21 Date: 03/23/1999 MID: 99644134 Path:
PrevMid: 98626741 97141940 82387568

* * * * C E R T I F I C A T E S * * * *

CertLev: COMMERCIAL PILOT Cert No: 086562153
DOI : 07/06/1998 Orig-DOI: N/A Exp Dte: N/A Cert Info:
Seal : BLUE FI Cert: App Sch:
DsgExmr: 001984210 Insp: Updated: VN46BU5 08/28/1998
Ratings: C/ASEL C/HEL C/INSTI
Micros : 60990540 82420798 84391138

* * E N D O F C E R T I F I C A T E S * *



SCALE 1:24 000

GN MN

0°35' 10 MILS

11° 196 MILS

1 .5 0 1 MILES

1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10 000 FEET

1 .5 0 1 2 KILOMETERS

1000 0 1000 2000 METERS

CONTOUR INTERVAL 40 FEET

NATIONAL GEODETIC VERTICAL DATUM OF 1929

29

Bob

MOUNTAIN FLYING

1. The Pilot 1

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Over-the-Counter Drugs 2

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- THIN AIR REDUCES PERFORMANCE SIGNIFICANTLY
- AIR FLOWING OVER & AROUND TERRAIN FEATURES CREATES WX / TURBULENCE
- FAST CHANGING WEATHER
  - T-STORMS COMMON IN SUMMER
  - SNOW STORMS COMMON IN WINTER
- WX REPORTING STATIONS FAR APART, & FAR FROM WX ACTION
- AIR MASSES MOVING OVER MOUNTAINS CAUSE CHANGING WX
- WINDFLOW OVER & BETWEEN PEAKS, PASSES, & RIDGES...
  - CAN DOUBLE WINDSPEED
  - VENTURI EFFECT - HIGHER AIRSPEED & LOWER PRESSURE
    - EFFECT ON ALTIMETER INDICATION
  - LIKE RIVER WATER OVER ROCKS, CONSTANTLY CHANGING WINDS
- EARLIER SUNSETS & HEAVY CLOUDS BRING DARKNESS SOONER
- MOUNTAINS CREATE FALSE HORIZONS

- WINDFLOW OVER SMOOTH TERRAIN FEATURE LESSENS TURBULENCE
- WINDFLOW OVER SHARP TERRAIN INCREASES TURBULENCE
- WHEN WET AIRMASSES MOVES DOWNSTREAM OVER MTNS, WX

- MOUNTAIN WAVES
  - EXIST ON THE DOWNWIND SIDE OF THE MOUNTAIN
  - CAN EXIST FOR HUNDREDS OF MILES DOWNSTREAM OF THE MOUNTAINS
  - CAN EXIST WITHOUT THE CLOUDS
  - OFFER GREAT UPDRAFTS / DOWNDRAFTS
  - ROTORS UNDER THE LENTICULARS CAN RIP YOU APART

- FLIGHT PLANNING
  - RADIO NAV AIDS OFFER REDUCED COVERAGE, VOR IS LINE OF SIGHT
  - FOLLOW HIGHWAYS...
    - USUALLY LOWER ROUTES
    - NEARER CIVILIZATION / HELP
  - LOCAL CHARTS MARKED WITH PASSES — high ground that passes & routes
  - SELECT LANDMARKS TO MONITOR ROUTE
  - PRE-ESTIMATE FUEL USAGE, LIMITED FUEL STOPS AVAILABLE
  - MONITOR FUEL USE
  - MAY BE HELPFUL TO CALL OTHER OFFICES FOR WX INFO
  - FILE FLIGHT PLAN TO ASSIST SEARCH & RESCUE
  - LOAD AS LIGHT AS POSSIBLE, BUT CARRY EXTRA FUEL
  - EARLY MORNING FLIGHTS ARE SMOOTHEST & HAVE FEWER CUMULOUS CLOUDS
  - AVOID MOUNTAINS WHEN WINDSPEED > 20 KTS

- CARRY EMERGENCY SUPPLIES/EQUIPMENT
  - FLASHLIGHT
  - JACKETS
  - MATCHES
  - WATER
  - CANDY/FRUIT
  - KNIFE
  - SIGNAL DEVICE/MIRROR
  - COMPASS

- LEAN FOR BEST POWER
- RUN A TRIAL TAKEOFF/LANDING ?
- ROTATE/FLY/APPROACH AT SAME INDICATED AIRSPEED AS AT FLATLAND
  - DON'T ROTATE ON A HUNCH THAT IT SHOULD BE FLYABLE
- DEPARTURE & APPROACH PATTERNS ARE OFTEN NON-STANDARD, FOLLOW TERRAIN
- UPHILL vs DOWNHILL T.O & LANDINGS
- FLYING UP CANYONS UNKNOWN CAN BE FATAL
- KNOW HOW TO DO A CHANDELLE, DON'T DO AN ACCELERATED STALL
- WHEN FLYING UP A CANYON INTO A HEADWIND, EXPECT DOWNDRAFT AT END
- KNOW WHERE TO FIND LIFT & HOW TO USE IT
  - THERMALS, TOP OF THEM IS THE CLOUDS
  - OROGRAPHIC LIFT
  - SUN'S HEATING OF MOUNTAIN SIDE
- KNOW PASS ALTITUDE, ESTABLISH ALTITUDE BEFORE TRYING TO CROSS
- EXPECT DOWNDRAFTS ON DOWNWIND SIDE OF MOUNTAIN
- WHEN YOU MUST FLY PARALLEL, FLY THE UPWIND SIDE OF THE MOUNTAIN
- WHEN YOU MUST FLY ACROSS THE MTN, FLY 50 PERCENT HIGHER
- WHEN IN A DOWNDRAFT, DON'T FIGHT IT, TRY TO GET OUT OF IT
- CROSS RIDGES AT 45 DEGREE ANGLE, ZIG-ZAG OVER SERIES OF RIDGES
- FLYING TURBULENCE - FLY ATTITUDE, USE Va, DON'T CHASE IT
- LOOK FOR EARLY INDICATIONS OF TROUBLE
  - GOING DOWN AS YOU APPROACH A RIDGE
  - ROUGHENING AIR

- POWER LINES ACROSS VALLEYS
- NIGHT MOUNTAIN FLYING

"Source of thermals for flying thermals"

ATP pilots crash too!
Colorado pilots crash too!

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Title and Character of Case:

PIPER ARCHER AIRCRAFT
LEVEILLE, PAUL, A

Date Property Acquired: Source from which Property Acquired:

01/13/2000 [redacted] b6 b7C

Anticipated Disposition: Acquired By: [redacted] Case Agent: [redacted]

Description of Property: Date Entered
1C 2

PHOTOS OF PIPER ARCHER PA 28-181

Barcode: Location: 05/08/2008

FD-340 WITH NOTES

Barcode: Location: 05/08/2008

Title and Character of Case:

PIPER ARCHER AIRCRAFT
LEVEILLE, PAUL, A

Date Property Acquired: Source from which Property Acquired:

01/13/2000 [redacted] b6 b7C

Anticipated Disposition: Acquired By: [redacted] Case Agent: [redacted]

Description of Property: Date Entered

1C 1

FD 302, [redacted] b6 b7C

[redacted] AND ENGINE TEARDOWN

Barcode: Location: 05/08/2008

Case Number: 321D-IR-8062
Owning Office: CRIT INCIDENT RESPON

(01/26/1998)

FEDERAL BUREAU OF INVESTIGATION

Precedence: IMMEDIATE **Date:** 09/01/1999

To: Criminal Investigative Denver **Attn:** CIRG, ASOU
SAC [redacted]
ASAC-A [redacted]
ASAC-C

b6
b7C

From: Denver
Squad 12 / CSRA
Contact: SSRA [redacted] 719-329-6540

b6
b7C

Approved By: [redacted]

Drafted By: [redacted]

Case ID #: 66G-DN-57927 ~~(Pending)~~ -1
66H-IR-A5346-IN/AC RPTS - 3

Title: CRASH OF PIPER ARCHER AIRCRAFT,
PONCHA PASS, COLORADO,
09/01/1999;
AVIATION SAFETY - INCIDENT/ACCIDENT REPORT

Synopsis: On 09/01/1999, during a routine training flight, a Bureau-operated aircraft crashed at a remote site in Saguache County, Colorado.

Administrative: Reference telephone conversations between Unit Chief Issac Macamora, Aviation and Special Operations Unit (ASOU), Critical Incident Response Group, CID and SSRA [redacted] and SA [redacted] Principal Relief Supervisor, Squad 12, Colorado Springs Resident Agency (CSRA), Denver, on 09/01/1999.

b6
b7C

Details: On 09/01/1999, at approximately 8:20 AM, a 1984 Piper Archer aircraft, tail number N4366D, Serial Number 28-849-0088, being flown by a Bureau Pilot and a private instructor crashed in a remote area of Saguache County, Colorado. The crash site is located in a remote area at approximately 11,500 feet, on National Forest land, south of the town of Salida, Colorado.

Two fixed-wing aircraft and one helicopter were operating in a Bureau-sponsored training exercise at the time of the crash. All aircraft departed from Colorado Springs, Colorado, earlier in the morning and had traveled southwest from there. No information concerning the extent of the damage or the condition of the pilot and passenger(s) is known at the present time due to the remote location of the crash site.

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b7C

3

66H-IR-A5346-IN/ [redacted]

SEARCHED [redacted] INDI
SERIALIZED [redacted] FILE
SEP 23 199

[redacted]

No Lead 9/23/99 [redacted]

3 1

To: Criminal Investigative From: Denver [redacted]
Re: 66G-DN-, 09/01/1999

The National Transportation Safety Board (NTSB) and Federal Aviation Administration have been notified and their investigators are en route to the scene. Based upon the referenced telephone conversations, the ASOU is also sending investigators to the crash site as well. SSRA [redacted] and Agents from the CSRA and Denver's Evidence Response Team are also en route. A Command Post is being established by the Saguache County Sheriff's Office, the NTSB and the National Forest Service at Poncha Pass, off of Highway 285.

b6
b7C

It is recommended that this case be opened and assigned to SA [redacted] Pueblo RA, Squad 12.

♦♦

(01/26/1998)

FEDERAL BUREAU OF INVESTIGATION

Precedence: IMMEDIATE **Date:** 09/02/1999

To: CIRG **Attn:** U/C [redacted] ASOU
Denver **Attn:** SAC Mark J. Mershon
ASAC-A [redacted]
ASAC-C [redacted]

El Paso **Attn:** SAC David E. Alba
ASAC [redacted]

[redacted] **From:** Denver
Squad 12 / CSRA
Contact: SSRA [redacted] 719-329-6540

Approved By: [redacted]

Drafted By: [redacted]

Case ID #: 66G-DN-57927-5 ~~(Pending)~~
66H-IR-A5346-IN/AC RPTS 4

Title: CRASH OF PIPER ARCHER AIRCRAFT,
PONCHA PASS, COLORADO,
09/01/1999;
AVIATION SAFETY - INCIDENT/ACCIDENT REPORT

Synopsis: To provide an update on this aircraft accident.

Details: On 09/01/1999, Special Agent (SA) Paul A. Leveille, El Paso Division, was involved in a training flight over mountainous terrain near the Sangre de Cristo Mountains in South Central Colorado. On board with SA Leveille was Charles Lloyd Burns, an experienced pilot and flight instructor with Colorado Skyways, a Colorado Springs-based company. Two additional Colorado Skyways aircraft with an FBI Agent Pilot and a flight instructor aboard were also involved in this training session. These three aircraft took off from Colorado Springs for this training.

The FBI has used Colorado Skyways services for the past three years to provide flight instruction to its pilots on how to fly in mountainous terrain. This was the fifth such training session in 1999, according to [redacted] owner of Colorado Skyways.

The aircraft flew southwest from Colorado Springs toward the San Luis Valley. The aircraft SA Leveille was in, disappeared from view and radio contact was lost with that aircraft. When the other two aircraft went to look for the plane with SA Leveille and Burns aboard, they observed some smoke and

4 RPTS
66H-IR-A5346-IN/AC

[redacted]

SEARCHED ____ INDEXED ____
SERIALIZED ____ FILED ____
SEP 17 1999

[redacted]

No Lead

3210-IR-8062-2

some debris on a mountainside. The other aircraft then returned to an airport near Salida, Colorado and notified authorities.

The crash site is located in Saguache County, south of Poncha Pass, in a remote area at approximately 10,500 feet above sea level. Search and Rescue Teams from both Chaffee and Saguache Counties and Agents from the Colorado Springs (CSRA) and Pueblo (PBRA) Resident Agencies, eventually made their way to the crash site and determined that there were no survivors. The bodies of SA Leveille and Burns were recovered and removed from the scene. They were then taken to a mortuary in Salida overnight.

On 09/02/1999, SA [redacted] Squad 12, CSRA, accompanied the bodies to the El Paso County Coroner's Office in Colorado Springs, where autopsies were scheduled for later in the day. b6 b7C

Agents from the CSRA, the PBRA and the Aviation and Special Operations Group (ASOU), CIRG, along with investigators from the National Transportation Safety Board and the Chaffee County and Saguache County Sheriff's Offices returned to the crash site on 09/02/1999, to examine and photograph the wreckage and crash site. Additional detailed information will be provided when it becomes available.

♦♦

(01/26/1998)

FEDERAL BUREAU OF INVESTIGATION

Precedence: ROUTINE **Date:** 09/10/1999

To: Atlanta **Attn:** SAC
SOG Supervisor
Aviation Coordinator

Laboratory **Attn:** IOSS
Special Photo Unit

Phoenix **Attn:** SAC
SOG Supervisor

From: CIRG
[redacted] Special Operations Unit
SSA [redacted] b6 b7C

Approved By: [redacted]

Drafted By: [redacted]

Case ID #: ~~(Pending)~~ 29

Title: BUREAU AVIATION SAFETY PROGRAM
AIRCRAFT ACCIDENT 09/01/1999
VILLA GROVE COLORADO
SA PAUL A LEVEILLE, PILOT-DECEASED
CHARLES L BURNS, FLIGHT INSTRUCTOR-DECEASED

Synopsis: To formalize in writing a verbal request, made on 09/09/1999, for assistance from receiving offices in connection with captioned fatal aircraft accident.

Details: SA Paul A. Leveille was killed while participating in a Bureau sponsored mountain flying course in Colorado Springs, Colorado. His flight instructor, Charles Burns, employed by Colorado Skyways, was also killed in the accident. The crash occurred approximately 70 miles west of Pueblo, Colorado.

SA's [redacted] and [redacted] are trained aircraft accident investigators who have been requested to conduct a comprehensive aircraft accident investigation concerning captioned matter. Travel authorization number is TR-14-DV-991411. b6 b7C

Vertical and oblique aerial photographs of the crash site and the surrounding area are also needed to assist in the investigation. The photographer from the Special Photo Unit assigned to this matter should contact Special Flight Operations SSA [redacted] to coordinate the flight to the location. b6 b7C

10/20/99 [redacted]

Uploaded + disseminated 10/19/9 [redacted]

321D-IR-8062; 3 5

~~66H-IR-A5346~~-IN/AC RPTS;

To: Atlanta From: CIRG
Re: 66H-IR-A5346, 09/10/1999

LEAD (s):

Set Lead 1: (Adm)

ATLANTA

AT ATLANTA

SA [redacted] is requested to immediately travel to Colorado Springs, Colorado to conduct an aircraft accident investigation. b6 b7C

Set Lead 2: (Adm)

PHOENIX

AT PHOENIX

SA [redacted] is requested to immediately travel to Colorado Springs, Colorado to conduct an aircraft accident investigation. SA [redacted] is designated the lead FBI investigator. b6 b7C

Set Lead 3: (Adm)

LABORATORY

AT WASHINGTON, DC

Special Photo Unit is requested to immediately provide a photographer to take oblique and areal photographs of the accident site and the surrounding area.

♦♦

(01/26/1998)

FEDERAL BUREAU OF INVESTIGATION

Precedence: ROUTINE **Date:** 10/13/1999

To: Phoenix **Attn:** SAC
SOG Supervisor
Aviation Coordinator

From: CIRG
Aviation Special Operations Unit
Contact: SSA [redacted] (703) 330-3331 b6 b7C

Approved [redacted]

Drafted By: [redacted]

Case ID #: ~~66H~~-IR-A5346-IN/AC RPTS ~~(Pending)~~; 6

Title: BUREAU AVIATION SAFETY PROGRAM
AIRCRAFT ACCIDENT 09/01/1999
VILLA GROVE COLORADO
SA PAUL A LEVEILLE, PILOT-DECEASED
CHARLES L BURNS, FLIGHT INSTRUCTOR-DECEASED

Synopsis: To request that SA [redacted] travel to Greely, Colorado, from 10/19/1999 through 10/20/1999, to conduct follow-up investigation pertaining to referenced matter. b6 b7C

Details: The National Transportation Safety Board plans to conduct an inspection of the aircraft's engine to determine its condition at the time of the accident.

SA [redacted] is one of the Bureau's aircraft accident investigators assigned to conduct a comprehensive investigation into this fatal accident. As such, it is necessary that he be a party to this tear-down and inspection process.

Travel should be completed under TR14-DV-001412. A rental car is authorized.

b6 b7C

[redacted]

uploaded by [redacted] 10/28/99

3210-IR-8062; 4 RPTS; 6

~~66H-IR-A5346-IN/AC~~

To: Phoenix From: CIRG
Re: 66H-IR-A5346-IN/AC RPTS, 10/13/199910/13/1999

LEAD (s):

Set Lead 1: (Adm)

PHOENIX

AT PHOENIX, AZ

SA [redacted] to conduct follow up post aircraft accident investigation at Greely, Colorado on approximately 10/19 through 10/20/1999.

b6
b7C

♦♦

(12/31/1995)

FEDERAL BUREAU OF INVESTIGATION

Precedence: ROUTINE **Date:** 10/13/2000

To: Inspection **Attn:** [redacted] b6 b7C

From: Inspection Division
Contact: [redacted] Extension 1837

Approved By: [redacted]

Drafted By: [redacted]

Case ID #: 66A-HQ-1255145-5

Title: AIRCRAFT ACCIDENT REVIEW BOARD (AARB)
DELIBERATION CONCERNING AN
AIRCRAFT ACCIDENT, 09/01/1999,
VILLA GROVE, COLORADO

Synopsis: To advise of the AARB's deliberation concerning an aircraft accident involving a Piper PA28-181 single engine airplane during a training session on 09/01/1999. Special Agent (SA) Paul A. Leveille and Colorado Skyways Flight Instructor Charles L. Burns were killed as a result of the plane crash.

Details: Reference report of SA [redacted] dated 05/01/2000, and Electronic Communication from Supervisory Special Agent (SSA) [redacted] dated 07/19/2000. b6 b7C

This communication is prepared to furnish the analysis, comments, and recommendations of the AARB with reference to the captioned airplane crash.

Here we go again!

1 - [redacted] Rm. 7142
2 - [redacted] Rm. 7116
(1 - [redacted])
1 - [redacted] Rm. 7128
2 - [redacted] Rm. 7427
(1 - [redacted] Rm. 7326)
1 - [redacted] CIRG
1 - [redacted] Rm. 7825
1 - [redacted] Rm. 7837
1 - [redacted]

1 - [redacted] Rm. 4042
(Attention: [redacted])
1 - [redacted] CIRG
1 - [redacted] CIRG
1 - [redacted] Rm. 3787
1 - [redacted] Quantico
1 - [redacted] WFO
1 - [redacted] Quantico
1 - [redacted] Rm. 7861

b6 b7C

66A-IR-A5346

66A-IR-A5346-EX/AC RFS; 28

[redacted] b6 b7C

Details of the Aircraft Accident

On 09/01/1999, SA Paul A. Leveille of the El Paso Division was killed while participating in a Bureau sponsored mountain flying course in Colorado Springs, Colorado. His flight instructor, Charles L. Burns, employed by Colorado Skyways was also killed in the accident which occurred approximately 70 miles West of Pueblo, Colorado, at the 11,700 foot mark of Hunter Mountain in the town of Villa Grove, Colorado.

The aircraft caught fire upon crashing and most of the aircraft and the bodies of both pilots were consumed by the post crash fire.

An investigator of the National Transportation Safety Board, along with an eight-man investigative team composed of FBI personnel hiked up to the 11,700 foot level of Hunter's Peak to investigate the wreckage. Upon arrival the crash site was smouldering within a radius of twenty feet from the main impact area. The initial impact occurred when the aircraft struck trees standing approximately 400 feet from the resting site of the main fuselage. A subsequent line of tree strikes indicated that the aircraft initially struck the trees in a substantial left bank on a heading of 270 degrees with both wings torn off by the impact with large trees.

The investigation revealed no indication of any fire beginning prior to the fuselage's final impact with the terrain. The aircraft fuselage that was not torn from the plane was almost entirely consumed by the post crash fire aft of the engine firewall. The engine was relatively intact with the propeller showing rotational damage which indicated that it was receiving power at impact. It was also determined that the engine was operating in a normal condition at the time of impact. The crash path of the aircraft indicated that it had to have flown very deeply into the valley before impacting the terrain on the south wall of the canyon.

When interviewed, SA [redacted] of the Los Angeles Division, advised that on 08/29/1999, he, SA [redacted] a pilot assigned to the Washington Field Office and SA Leveille, attended a ground training course which began at 8:00 a.m., and ended at Noon. According to SA [redacted] he thought that the ground school training covered everything the pilots needed to know about the mountain flying course, including the basics of mountain flying, density altitude, and the exact route they were to fly. b6 b7C

(01/26/1998)

FEDERAL BUREAU OF INVESTIGATION

Precedence: ROUTINE **Date:** 01/19/2000

To: Criminal Investigative **Attn:** CIRG, ASOU
Denver

From: Denver
Squad 12/ Pueblo RA
Contact: SA [redacted] (719) 543-3330 b6 b7C

Approved By [redacted]

Drafted By: [redacted]

Case ID #: 66G-DN-57927 (Closed) - 14
66H-IR-A5346-IN/AC RPTS - 7

Title: CRASH OF PIPER ARCHER AIRCRAFT,
PONCHA PASS, COLORADO,
09/01/1999;
AVIATION SAFETY- INCIDENT/ACCIDENT REPOR

Synopsis: CLOSE DENVER CASE FILE

Details: During the initial response to the aircraft accident on 9/1/1999 Denver Division provided operational support to ASOU investigators and during the next several months assisted with follow up investigation. Denver agents also escorted the remains of SA Paul Leveille to his family in Maine. To date no further investigative requests have been received by ASOU; Denver will close it's case file at this time.

CC: SA [redacted] b6 b7C

♦♦

b6
b7C

file 2/12/2000

[redacted]

321D-IR-8062-
66H-IR-A5346-

[redacted] (IR) (FBI) b6 b7C

From: [redacted] (IR) (FBI)
Sent: Tuesday, May 05, 2009 1:30 PM
To: [redacted] (IR) (FBI)
Subject: RE: Sub files

SENSITIVE BUT UNCLASSIFIED
NON-RECORD

Hi [redacted]

Sure, I think opening sub files off of 321D-IR-A7373 would be fine. Approval granted to open the referenced sub files.

Have a great day,

[redacted] b6 b7C b7E

[redacted]
Management & Program Analyst
CIRG, NCAVC, BAU-2 &
CIRG, Records Management
[redacted]

From: [redacted] (IR) (FBI) b6 b7C
Sent: Tuesday, May 05, 2009 10:56 AM
To: [redacted] (IR) (FBI)
Subject: Sub files

SENSITIVE BUT UNCLASSIFIED
NON-RECORD

SSA [redacted] would like to have opened "SUB" files for each aircraft incident.
Would it be possible to get "subs" off the 321D-IR-A7373?

[redacted] b6 b7C b7E
Secretary
ASB/CIRG
[redacted]

SENSITIVE BUT UNCLASSIFIED

SENSITIVE BUT UNCLASSIFIED

8/4/2009 [redacted]
OPEN Sub files
W/ Field Office Designator + date

321D-IR-A7373-DN09011997; 7

FEDERAL BUREAU OF INVESTIGATION
FOI/PA
DELETED PAGE INFORMATION SHEET
FOI/PA# 1572723-000

Total Deleted Page(s) = 3
Page 5 ~ Duplicate;
Page 15 ~ b6; b7C;
Page 20 ~ b6; b7C;

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X For this Page X
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b6
b7C

IMPORTANT

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YOUR WARRANTY REGISTRATION CARD
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Model VXA-100

Serial No. 0H150331

YAESU U.S.A.
17210 Edwards Rd, Cerritos, CA 90703

WARRANTY POLICY

Subject to the limitations of Warranty and Warranty Procedures, Yaesu warrants this equipment against defects in material or workmanship, commencing from the date of original purchase by the end user and continuing for the following periods:

Transceiver Mainframe	36 months
Internal Electronics & Parts	36 months
External Accessories	12 months

This warranty is limited to repairing or replacing only the defective parts. It is not valid if the equipment has been tampered with, misused, or damaged.

If service or repair is required within the warranty period, the owner should return the product to the authorized Yaesu Dealer from which the product was purchased. The Dealer may perform the warranty repair, or may forward the equipment to Yaesu U.S.A. for repair at the Dealer's option, subject to the Yaesu U.S.A. warranty repair policies in effect at the time.

This warranty is valid only for products sold and used within the United States of America and Canada. For products sold outside the U.S. and Canada, please consult the Authorized Yaesu Dealer for information regarding the applicable warranty terms.

This warranty is valid only if the enclosed Warranty Registration Card is properly completed and mailed to Yaesu U.S.A. within ten days of the date of original retail sale. The owner is advised to retain a copy of the dated sales receipt from the Dealer as proof-of-purchase.

Yaesu retains the right to make changes or modifications to the product line without notice or obligation to the owner of this equipment.

YAESU U.S.A.
17210 Edwards Rd, Cerritos, CA 90703

SKILCRAFT®

Executive Steno Notebook

7530-00-223-7939
Notebook, Stenographers
A-A-2803
Arkansas Lighthouse for the Blind
Little Rock, AR 72219

Gregg ruled
80 Sheets
6" x 9"

Name [redacted] b6 b7C

Date PHOENIX

Received fro [redacted]

To: _____

SKILCRAFT®

Javits-Wagner-O'Day
JWOD

SKILCRAFT Trademark Licensed by:
National Industries for the Blind

Product contains recycled materials

SKILCRAFT Quality Blind-Made Products

GWT 2530

213665 1582 FUEL 288 = 1870 = (620) - 480 = 140

SA [redacted] PT TOWN - [redacted] (4½ yrs) PT CK OUT APP'L

N97890 - CL72

SA [redacted] - [redacted] (4½ yrs) (NO FLT CK)

N6319 - CL72 TDSMO - SMOKS

SA Lockheed - BURNS (6 mos) 4.3 FLT CK [redacted]

N4366P - PA 28-181 FLT CK - MAY

TELLURIDE

66H-IR-A5346

[redacted] b6 b7C

1 SEP 1999

NAT Hdqtrs [redacted]

SOF, FAA [redacted]

AIRPORT

[redacted]

(B) - 888 - 223 - 5273 -

(H) [redacted]

[redacted] (B) 888 - 431 - 7215 FAX - 540 - 752 - 1324

Hdqtrs SOD

* LEUGILLE, PAUL A 086 - 56 2153 2/3/96

10/14/59 WIFE -

PIPER ARCHER N4366D Dpt FLIGHT of Thru

30 MIN LEUGILLE / CHUCK BURNS

* NTSB [redacted] (FAA) b6 b7C

SAGUACHE S.O. C.P. POTOSA PASS

719 - 655 - 2544

CRASH SITE 11400 45° PITCH PIPER ARCHER

38°23'55"N 105°57'863"W 9.6m 145° OU2

NEAR SALIDA - Colo 11,700 FT

RADISSON (719) 597 - 7000 FAX - 597 4308

[redacted] b6 b7C

[redacted]

[redacted]

73rd 38th

NATIONAL > 200

COLORADO SKY WAYS 1777 QUSTOM CA

719 574 - 2111

[redacted]

b6
b7C

Thy checked VP Seen Clear
way at airport calm
wind slight wind

Flew Conted 8th Clear No
updrafts

Flight Plan of Operation
Intend Conty Land at Alexandria

145° 9.6 miles OVR
N 38 23 5 W 105. 57. 85

Discontinue Long Enr Late to P. Not

SSRA [redacted]

b6
b7C

Source Spins [redacted] in Trg

b6
b7C

[redacted] L.A.

[redacted] Wash Field Room 102

719-539-3720 (FBO) at Salida

Best West 800-777-7547 Colo Springs

SSRA

EAP -

1/29/5

CP. [redacted] SHERIFF [redacted]

[redacted] 703-517-0489

ARMIE [redacted]

[redacted]

[redacted]

CB 11

[redacted]

NOT ADDRESSED

b6
b7C

b6
b7C

b6
b7C

6:30 pm Colorado Springs

[redacted] Washington Field Office b6 b7C

601 4th St NW Wash 20535

Chevy 3000 Fax PIC 1998

6/8/97 14959 [redacted]

Dinner T'Bones no alcohol

Arrive 8/25/99

Grand Schol 8/30/99 8:00 pm

Enrollment Through Reynolds Inst

a lot of monitor ops

Burpee end of day or flight especially

Did not [redacted] formation b6 b7C

Flew with

Colored Skyways. 1111 Aviation Way

arrive 7:00 pm Gather together [redacted]

Put [redacted] in Archer because of mission

[redacted] file

b6
b7C

[redacted]

PA 28-181 [redacted] N4366D

Ce 172 N96319

Ce 172 [redacted] N97890 [redacted]

Reports 730 AM flew Westbrook Count

b6
b7C

[redacted] 1ST,

antenna Mountain flew through Canyons

used thermals & gain altitude

1ST & go over pass

815 Instructor calling engine fr over

at Pass. Talking about Day Box

Canyon Area

Can't my eye see small

amount of defined smoke Suggested

can go back & look. Instructor

circled location. ATTEMPT TO CALL

Base on radio as response - Other

instructor on radio

Post Complaint on my end but Pilots

small again what object I fail

significant event in area

believe other guests present & accident
Cordelia + Burns may have been present
Boy Tom Reeder a/s 60° angle Bank

Concept
Instant question

asked Instant when to go report

[redacted] OV2 Chapman County
[redacted] us on station
[redacted] asked on UNICOM of each kind
Comm in. [redacted]
[redacted] called in on Unicom - assistance
BN206L N9379 Pilot Lyle
[redacted] US West [redacted]
[redacted]

b6
b7C

b6
b7C

8:35 AM Flew to location
8:55 AM Id wreckage of Airplane
saw wing + tail

No Summons attempt fully executed
Related to charges [redacted] b6 b7C
alleged on scene - called Colorado
Springs to verify as not returned
[redacted] contacted called in last employer
called [redacted]
not active Idaho Stat - for deployment counter
Idaho search warrant pending
down hold

Person open fraud a warrant
a get caught in Dona Ana

[redacted] b6 b7C
copy letter of order

Report date 6-30

2414 $350.00
238 p 513 p

[redacted]

b6
b7C

NATIONAL BUREAU SAC 10

GN-IR-A-5346

DAVE NCBA - SAC EL PASO

PHOTO PLANE COLO SPRINGS SAC
3 - T T COMMANDER 680 LOGAN LIBMAN DON STURGIS

COLORADO SKYWAYS COLORADO